

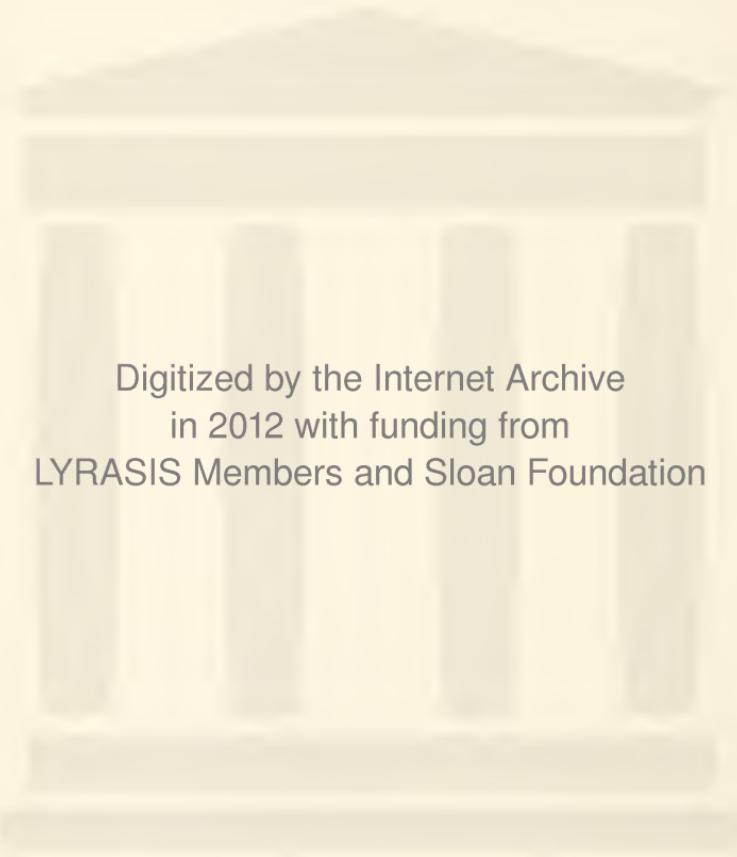


Memphis State University



Graduate School Bulletin

Catalog Issue 1964-1965



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of
Memphis State University

Vol. XV September, 1964 No. 1

THE
GRADUATE SCHOOL



Announcements for 1964-65

THE GRADUATE SCHOOL

Calendar 1964-65

1964													
SEPTEMBER							NOVEMBER						
S	M	T	W	T	F	S	S	M	T	W	T	F	S
			1	2	3	4	1	2	3	4	5	6	7
6	7	8	9	10	11	12	8	9	10	11	12	13	14
13	14	15	16	17	18	19	15	16	17	18	19	20	21
20	21	22	23	24	25	26	22	23	24	25	26	27	28
27	28	29	30				29	30					
OCTOBER							DECEMBER						
S	M	T	W	T	F	S	S	M	T	W	T	F	S
			1	2	3		1	2	3	4	5		
4	5	6	7	8	9	10	6	7	8	9	10	11	12
11	12	13	14	15	16	17	13	14	15	16	17	18	19
18	19	20	21	22	23	24	20	21	22	23	24	25	26
25	26	27	28	29	30	31	27	28	29	30	31		
1965							JANUARY						
S	M	T	W	T	F	S	S	M	T	W	T	F	S
			1	2			1	2	3	4	5		
3	4	5	6	7	8	9	2	3	4	5	6	7	8
10	11	12	13	14	15	16	9	10	11	12	13	14	15
17	18	19	20	21	22	23	16	17	18	19	20	21	22
24	25	26	27	28	29	30	23	24	25	26	27	28	29
31							30	31					
FEBRUARY							MAY						
S	M	T	W	T	F	S	S	M	T	W	T	F	S
		1	2	3	4	5	1	2	3	4	5		
7	8	9	10	11	12	13	2	3	4	5	6	7	8
14	15	16	17	18	19	20	9	10	11	12	13	14	15
21	22	23	24	25	26	27	16	17	18	19	20	21	22
28							13	14	15	16	17	18	19
MARCH							JUNE						
S	M	T	W	T	F	S	S	M	T	W	T	F	S
		1	2	3	4	5	1	2	3	4	5		
7	8	9	10	11	12	13	6	7	8	9	10	11	12
14	15	16	17	18	19	20	13	14	15	16	17	18	19
21	22	23	24	25	26	27	20	21	22	23	24	25	26
28							27	28	29	30			
APRIL							JULY						
S	M	T	W	T	F	S	S	M	T	W	T	F	S
			1	2	3	4	1	2	3	4	5	6	7
4	5	6	7	8	9	10	4	5	6	7	8	9	10
11	12	13	14	15	16	17	11	12	13	14	15	16	17
18	19	20	21	22	23	24	18	19	20	21	22	23	24
25	26	27	28	29	30	31	25	26	27	28	29	30	31
AUGUST							AUGUST						
S	M	T	W	T	F	S	S	M	T	W	T	F	S
			1	2	3	4	1	2	3	4	5	6	7
8	9	10	11	12	13	14	8	9	10	11	12	13	14
15	16	17	18	19	20	21	15	16	17	18	19	20	21
22	23	24	25	26	27	28	22	23	24	25	26	27	28
29	30	31					29	30	31				

THE GRADUATE SCHOOL
MEMPHIS STATE UNIVERSITY

Memphis, Tennessee 38111

Calendar 1964-65

Fall Semester 1964-65

September 26, Saturday.....Registration, The Graduate School, 9:00 A.M.
September 28, Monday.....Classes meet as scheduled
October 2, Friday.....Last day for adding courses
October 9, Friday.....Holiday. West Tennessee Education Association
October 23, Friday.....Last day for making application to The Graduate School for degree to be conferred in January, 1965
October 30, Friday.....Last day for dropping courses
November 11, Wednesday.....Holiday. Veterans' Day
November 26, Thursday
November 29, Sunday
(inclusive)Thanksgiving recess
December 20, Sunday
January 3, Sunday
(inclusive)Christmas recess
January 22, Friday.....Final examinations begin
January 30, Saturday.....Commencement, 10:00 A.M.

Spring Semester 1965

February 6, Saturday.....Registration, The Graduate School, 9:00 A.M.
February 10, Wednesday.....Classes meet as scheduled
February 16, Tuesday.....Last day for adding courses
March 12, Friday.....Last day for making application to The Graduate School for degree to be conferred in May, 1965
March 16, Tuesday.....Last day for dropping courses
April 15, Thursday
April 18, Sunday
(inclusive)Easter recess
May 22, Saturday.....Final examinations begin
May 29, Saturday.....Commencement, 10:00 A.M.

Summer Session 1965

First Term

June 6, Sunday.....Dormitories will open at noon
June 7, Monday.....Registration, The Graduate School, 2:00 P.M.
June 9, Wednesday.....Classes meet as scheduled
June 14, Monday.....Last day for adding first term courses
June 18, Friday.....Last day for dropping first term courses
June 25, Friday.....Last day for dropping two-term courses
July 5, Monday.....Holiday. Independence Day
July 12, Monday.....Last day for withdrawal from first term
July 14, Wednesday.....Final examinations

Second Term

July 19, Monday.....Registration, The Graduate School, 2:00 P.M.
July 20, Tuesday.....Classes meet as scheduled
July 22, Thursday.....Last day for adding second term courses
July 23, Friday.....Last day for making application to The Graduate School for degree to be conferred in August, 1965
July 29, Thursday.....Last day for dropping second term courses
August 16, Monday.....Last day for withdrawal from second term
August 19, Thursday.....Final examinations
August 20, Friday.....Commencement, 8:00 P.M.

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GRADUATE SCHOOL ADMINISTRATION

Administrative Officers

CECIL C. HUMPHREYS, PH.D., *President*JOHN BAIRD MORRIS, PH.D., *Academic Dean*JOHN W. RICHARDSON, JR., ED.D., *Dean, Graduate School*ROBERT MELVILLE ROBISON, M.A., *Dean of Students*LAMAR NEWPORT, M.A., *Business Manager*R. P. CLARK, M.A., *Dean of Admissions*EVA SCOTT, *Secretary*

State Board of Education

GOVERNOR FRANK G. CLEMENT.....	Nashville
COMMISSIONER J. HOWARD WARF, <i>Chairman</i>	Nashville
HON. ERNEST C. BALL.....	Memphis
HON. THOMAS M. DIVINE.....	Kingsport
HON. JOHN W. FINNEY.....	Columbia
HON. DALE GLOVER.....	Obion
HON. EDWARD L. JENNINGS.....	Liberty
HON. T. R. KEYS.....	Erwin
MRS. BERNARD A. McDERMOTT.....	Nashville
HON. F. THORNTON STRANG.....	Chattanooga
HON. J. FRANK TAYLOR.....	Huntingdon
HON. HAL D. WEST.....	Nashville
HON. JAMES WILLIAMS.....	Henderson
MRS. SAM WILSON.....	Loudon

Graduate School Faculty

HERBERT GRAVES ALBRITTEN.....*Associate Professor, Chemistry*
Ph.D. (1951), Pennsylvania State University.

HOLGER W. ANDERSON.....*Associate Professor, Psychology*
Ph.D. (1937), George Peabody College for Teachers

HARRY AUSPRICH.....*Professor, Speech and Drama*
Ph.D. (1963), Michigan State University

HAROLD R. BANCROFT.....*Assistant Professor, Biology*
Ph.D. (1962), Mississippi State University

PETER BANNON.....*Professor, English*
Ph.D. (1943), State University of Iowa

WILLIAM B. BARTON, JR.....*Professor, Philosophy*
Ph.D. (1955), Harvard University

CHARLES P. BIGGER.....*Associate Professor, Philosophy*
Ph.D. (1951), University of Virginia

AARON M. BOOM.....*Professor, History*
Ph.D. (1948), University of Chicago

JERRY N. BOONE.....*Associate Professor, Psychology*
Ph.D. (1961), Vanderbilt University

CARL D. BROWN.....*Professor, Biology*
Ph.D. (1951), Iowa State University

LEON W. BROWNLEE.....*Professor, Education*
Ph.D. (1952), University of Texas

ERWIN C. BUELL.....*Professor, Political Science*
Ph.D. (1955), University of North Carolina

ROBERT C. CANNON.....*Special Instructor, Psychology*
Ph.D. (1955), University of Colorado

RONALD E. CARRIER.....*Professor, Management*
Ph.D. (1960), University of Illinois

W. PIERCE CARSON.....*Professor, English*
Ph.D. (1925), Columbia University

HELEN W. CHILDESS.....*Associate Professor, English*
Ph.D. (1958), George Peabody College for Teachers

DON P. CLAYPOOL.....	<i>Professor, Chemistry</i>
Ph.D. (1952), University of Kentucky	
R. J. COLTHARPE.....	<i>Professor, Industrial Arts</i>
M.S. (1938), Kansas State University	
CONRAD CONSALVI.....	<i>Assistant Professor, Psychology</i>
Ph.D. (1960), Vanderbilt University	
ROBERT W. COLSTON.....	<i>Special Instructor, Health and Physical Education</i>
Ph.D. (1952), Indiana University	
E. EARL CRADER.....	<i>Professor, Education</i>
Ph.D. (1952), George Peabody College for Teachers	
EDWARD IRWIN CRAWFORD.....	<i>Professor, Accountancy</i>
Ed.D. (1946), New York University	
LAWRENCE W. CURBO.....	<i>Associate Professor, Accountancy</i>
M.B.A. (1950), University of Mississippi; C.P.A. (1950), Mississippi	
JOHN LASLEY DAMERON.....	<i>Assistant Professor, English</i>
Ph.D. (1962), University of Tennessee	
GEORGE L. DOWD.....	<i>Assistant Professor, Education</i>
Ed.D. (1956), University of Mississippi	
PAUL B. EAHART.....	<i>Professor, Music</i>
M.A. (1946), Northwestern University	
JOHN H. ELLIS.....	<i>Assistant Professor, History</i>
Ph.D. (1962), Tulane University	
HENRY B. EVANS.....	<i>Professor, English</i>
Ph.D. (1938), George Peabody College for Teachers	
JOHN FARRIOR.....	<i>Professor, English</i>
Ph.D. (1954), University of North Carolina	
EUGENE FOX.....	<i>Professor, Management</i>
Ph.D. (1962), University of Alabama	
JESSE W. FOX.....	<i>Professor, Chemistry</i>
M.A. (1937), George Peabody College for Teachers	
WILLIAM R. GILLASPIE.....	<i>Associate Professor, History</i>
Ph.D. (1961), University of Florida	
JOHN R. GORDON.....	<i>Professor, Sociology</i>
Ph.D. (1951), University of Texas	

GEORGE JONES HARRIS.....	<i>Professor, Music</i>
M.M. (1947), Northwestern University	
RALPH HATLEY.....	<i>Professor, Health and Physical Ed.</i>
M.A. (1950), University of Tennessee	
ALBERT FORD HAYNES, JR.....	<i>Professor, Education</i>
Ed.D. (1958), University of Tennessee	
ELMORE HOLMES.....	<i>Professor, Chemistry</i>
Ph.D. (1947), University of Tennessee	
ELMO H. HOWELL.....	<i>Associate Professor, English</i>
Ph.D. (1955), University of Florida	
G. LEON HOWELL.....	<i>Assistant Professor, Biology</i>
Ph.D. (1959), University of Alabama	
CHARLES CARROL IJAMS.....	<i>Professor, Physics</i>
Ph.D. (1941), Vanderbilt University	
OVERTON P. JAMES.....	<i>Assistant Professor, English</i>
Ph.D. (1962), Vanderbilt University	
R. W. JENNINGS.....	<i>Professor, Business Education</i>
Ph.D. (1949), University of Kentucky	
RAYBURN W. JOHNSON.....	<i>Professor, Geography</i>
Rh.D. (1936), University of Chicago	
SAM H. JOHNSON.....	<i>Professor, Education</i>
Ed.D. (1954), New York University	
H. S. KALTENBORN.....	<i>Professor, Mathematics</i>
Ph.D. (1934), University of Michigan	
ROBERT H. KARRAKER.....	<i>Assistant Professor, Chemistry</i>
Ph.D. (1961), Iowa University	
IRL B. KRAUSE, JR.....	<i>Associate Professor, Education</i>
Ed.D. (1954), University of Mississippi	
EDWIN MURRAY LABOUNTY.....	<i>Assistant Professor, Music</i>
Mus.D. (1962), Indiana University	
EUGENE W. LAMBERT.....	<i>Professor, Health and Physical Education</i>
Ed.D. (1942), Columbia University	
FRANK C. LEEMING.....	<i>Assistant Professor, Psychology</i>
Ph.D. (1963), University of Mississippi	

GEORGE B. LEON.....	<i>Assistant Professor, History</i>
Ph.D. (1961), University of Georgia	
FREDERIC LUBRANI.....	<i>Assistant Professor, Music</i>
M.M. (1946), Cincinnati Conservatory of Music	
JAMES R. McCANN.....	<i>Professor, Psychology</i>
Ph.D. (1955), Vanderbilt University	
MARY HELEN McCLANAHAN.....	<i>Assistant Professor, Political Science</i>
Ph.D. (1963), Cornell University	
HERBERT J. MARKLE.....	<i>Professor, Economics and Finance</i>
Ph.D. (1951), State University of Iowa	
ROBERT H. MARSHALL.....	<i>Associate Professor, Chemistry</i>
Ph.D. (1954), University of Illinois	
JAMES S. MATTHEWS.....	<i>Associate Professor, Geography</i>
Ph.D. (1949), University of Chicago	
ENOCH L. MITCHELL.....	<i>Professor, History</i>
M.A. (1938), George Peabody College for Teachers	
ROLAND T. MULLINS.....	<i>Professor, Economics and Finance</i>
Ph.D. (1961), University of Arkansas	
CHARLES H. NEWTON.....	<i>Associate Professor, Sociology</i>
Ph.D. (1962), Florida State University	
ELBERT F. NOTHERN.....	<i>Associate Professor, Education</i>
Ed.D. (1953), University of Arkansas	
ROBERT LEE OGLE.....	<i>Assistant Professor, Industrial Arts</i>
Ed.D. (1963), University of Tennessee	
MARCUS W. ORR.....	<i>Assistant Professor, History</i>
Ph.D. (1958), University of Illinois	
WILLIAM ROBERT OSBORNE.....	<i>Associate Professor, English</i>
Ph.D. (1955), George Peabody College for Teachers	
ELIZABETH C. PHILLIPS.....	<i>Associate Professor, English</i>
Ph.D. (1953), University of Tennessee	
NOEL G. RAPP.....	<i>Associate Professor, Speech and Drama</i>
Ph.D. (1955), Purdue University	
JOHN W. RICHARDSON, JR.....	<i>Professor, Education</i>
Ed.D. (1957), New York University	

JOSEPH H. RIGGS.....	<i>Associate Professor, Speech and Drama</i>
Ph.D. (1962), University of Illinois	
JOSEPH R. RILEY.....	<i>Assistant Professor, English</i>
Ph.D. (1962), Vanderbilt University	
JOHN ROBERTS.....	<i>Associate Professor, Secretarial Science and Office Management</i>
Ph.D. (1962), State University of Iowa	
CHARLES N. ROBINSON.....	<i>Associate Professor, Chemistry</i>
Ph.D. (1953), University of Tennessee	
A. S. RUDOLPH.....	<i>Professor, Biology</i>
Ph.D. (1938), Iowa State College	
HEBER ELIOT RUMBLE.....	<i>Professor, Education</i>
Ph.D. (1943), University of Illinois	
FRANK B. SCHIRMER, JR.....	<i>Professor, Chemistry</i>
Ph.D. (1939), Cornell University	
E. B. SCOTT, JR.....	<i>Associate Professor, Health and Physical Education</i>
P.E.D. (1954), Indiana University	
RUBY F. SHUBKAGLE.....	<i>Associate Professor, Education</i>
Ph.D. (1960), Indiana University	
DARRELL D. SIMMONS.....	<i>Assistant Professor, Industrial Arts</i>
Ed.D. (1958), University of Tennessee	
PAUL H. SISCO.....	<i>Professor, Geography</i>
Ph.D. (1954), University of Chicago	
JOHANNES SMIT.....	<i>Associate Professor, Music</i>
Ph.D. (1953), Eastman School Of Music, University of Rochester	
ALFRED WINN SMITH.....	<i>Associate Professor, English</i>
Ph.D. (1954), George Peabody College for Teachers	
OMAR E. SMITH.....	<i>Assistant Professor, Biology</i>
Ph.D. (1961), Iowa State	
WALTER R. SMITH.....	<i>Professor, English</i>
Ph.D. (1951), University of California	
WILL D. SMITH.....	<i>Associate Professor, Education</i>
Ph.D. (1952), George Peabody College for Teachers	

JOHN A. SOBOL.....	<i>Associate Professor, Geography</i>
Ph.D. (1961), University of Michigan	
WILLIAM H. SPELL.....	<i>Assistant Professor, Physics</i>
Ph.D. (1961), University of Arkansas	
JESSE W. SPICELAND.....	<i>Professor, Accountancy</i>
M.S.B.A. (1948), Washington University; C.P.A. (1951), Tennessee	
CHARLES R. SPINDLER.....	<i>Professor, Marketing</i>
M.A. (1942), State University of Iowa	
MARY ELIZABETH CUNNINGHAM STEPHENSON.....	<i>Assistant Professor, Education</i>
Ph.D. (1963), University of Alabama	
LOUIS CHARLES STAGG.....	<i>Assistant Professor, English</i>
Ph.D. (1963), University of Arkansas	
CALVIN M. STREET.....	<i>Professor, Education</i>
Ed.D. (1953), University of Tennessee	
REDDING STANFILL SUGG.....	<i>Professor, English</i>
Ph.D. (1952), University of Texas	
JOSEPH P. SWEAT.....	<i>Assistant Professor, Education</i>
Ed.D. (1963), University of Arkansas	
CHARLES TEMPLETON.....	<i>Assistant Professor, Management</i>
M.A. (1962), Memphis State University; C.P.A. (1954), Tennessee	
JAMES T. THOMPSON.....	<i>Professor, Accountancy</i>
M.B.A. (1949), Indiana University; C.P.A. (1960), Tennessee	
WAYLAND A. TONNING.....	<i>Professor, Marketing</i>
Ph.D. (1959), University of Illinois	
CLARENCE L. UNDERWOOD.....	<i>Professor, Education</i>
Ph.D. (1935), University of Pittsburgh	
WALTER WILSON WADE.....	<i>Associate Professor, Music</i>
Ph.D. (1958), Northwestern University	
DAVID T. WALKER.....	<i>Associate Professor, Mathematics</i>
Ph.D. (1955), University of Georgia	
ROBERT F. WATSON.....	<i>Assistant Professor, Chemistry</i>
Ph.D. (1963), University of Tennessee	

FRANK F. WELBOURNE, JR.....*Assistant Professor, Biology*
Ph.D. (1962), University of Oklahoma

DAVID A. WEST.....*Professor, Economics and Finance*
Ph.D. (1961), University of Arkansas

BRADFORD WHITE.....*Professor, Speech and Drama*
M.F.A. (1939), Yale University

LONNIE J. WHITE.....*Associate Professor, History*
Ph.D. (1961), University of Texas

HERBERT LEE WILLIAMS.....*Professor, Journalism*
Ph.D. (1955), University of Missouri

JAMES D. WOOLE.....*Associate Professor, English*
Ph.D. (1953), Vanderbilt University

ALBERT HAINES WOOLLETT.....*Assistant Professor, Physics*
Ph.D. (1956), University of Oklahoma

MILTON WRAY.....*Assistant Professor, Accountancy*
M.B.A. (1954), University of Pennsylvania; C.P.A. (1956), Tennessee

LAWRENCE WYNN.....*Professor, English*
Ph.D. (1951), Princeton University

General Information

The Graduate School of Memphis State University is the center of advanced study within the University, the purpose of which is to train scholars and to carry on research in the fields of learning represented by its faculties.

The Graduate School aims first of all to meet the needs of students who wish to continue, on a more advanced level, some field of study begun in undergraduate courses, and who desire preparation for scholarly careers. The Graduate School is also concerned with preparing those who plan to teach or assume leadership responsibility in the public school system or in colleges. A general mastery of the field of interest is considered essential to all graduate programs.

The University operates on the semester system. The official calendar on page 3 shows dates for registration and the beginning of course work.

Three schedules, each carrying proportionate residence credit, are operated in the Fall and Spring semesters: one for full-time students, one for students who can attend classes only in the evening, and one for students who can attend classes only on Saturday.

Organization of the Graduate School

The Graduate School is under the direction of the Graduate Council. This council is composed of the President of the University, the Dean of the Graduate School, the Chairmen of each department in which the equivalent of a graduate major is offered, and in addition one faculty representative from each department in which the equivalent of a graduate minor is offered. Departments offering graduate courses, but not the equivalent of a major or minor, are collectively represented by one additional council member.

Students admitted to the Graduate School are responsible to the Graduate Council through the Dean of the Graduate School. Any approved graduate faculty member may act as major or minor adviser to students in their respective departments.

PHYSICAL FACILITIES

Academic Buildings

THE ADMINISTRATIVE BUILDING, the first academic building on the campus, was completed in 1912; it has been enlarged and remodeled several times and is completely air conditioned. It houses most of the administrative offices of the University and contains classroom and office space for several departments in The School of Arts and Sciences. The Academic Computer Center is also located in this building.

MANNING HALL, built in 1930 and named in honor of the University's first instructor in science, Priestly Hartwell Manning, provides the departments of Chemistry and Physics, and Home Economics with classrooms, offices, laboratories, a science auditorium, and faculty and graduate research facilities.

JOHNSON HALL, completed in 1958, is named in honor of Dr. Rayburn W. Johnson, Professor of Geography, and his late wife, Ethel B. Johnson. Air conditioned throughout, it contains classrooms, laboratories, offices, a map library, a conference room, and an auditorium for the departments of Geography, Psychology, and Sociology and Anthropology. On the ground floor is the Ethel B. Johnson Reception Room, dedicated to the use of the Memphis State University Faculty Wives Club.

JONES HALL, named in honor of Otis Henry Jones, University bursar from 1925 to 1937, was completed in 1960. It is completely air conditioned and provides classroom and office space for the departments of Air Science, Art, Classical Languages, and Modern Languages (with an electronic language laboratory). It also houses the University Post Office and the office of the coordinator of Veterans' Affairs.

THE SCHOOL OF BUSINESS ADMINISTRATION BUILDING is a new four-story, air-conditioned structure with an adjoining auditorium; it contains administrative offices, classrooms, laboratories, and offices for the departments of Accountancy, Economics and Finance, Political Science, Management, Marketing, Secretarial Science and Office Management, and the Bureau of Business Research.

THE INDUSTRIAL ARTS BUILDING, built in 1941, and enlarged in 1946, and 1960, provides classrooms, offices and extensive laboratory facilities for drafting, surveying, woodworking, metalworking, ceramics, and general shop practices. The University Printing Plant is located in this building.

THE MEMPHIS STATE UNIVERSITY CAMPUS SCHOOL, operated in cooperation with the Board of Education of the City of Memphis, provides air-conditioned facilities for training student teachers and opportunities for observing good teaching procedures. In addition to regular classrooms it features flexible spaces, learning cubicles, one way observation glass, sound controls, connections for television broadcasts and reception, and modern facilities to meet the needs of modern public school teaching. These facilities are also utilized in faculty and graduate demonstration, research and experimental projects.

THE FIELD HOUSE, built in 1951 and enlarged in 1958 and 1964, contains basketball courts, gymnasiums, classrooms, a stage, seats for

4000, and offices for the Department of Health and Physical Education, and for athletics.

THE BIOLOGY BUILDING, which is to be completed in 1964, is an air-conditioned building designed to meet the increasing needs of the Department of Biology for classrooms, laboratories, specimen areas, research facilities, and an auditorium.

THE SCHOOL OF EDUCATION BUILDING, an air-conditioned structure also due for completion in 1964, will house the administration and faculty offices of the School of Education as well as general and special classrooms, laboratory and research areas (including a curriculum laboratory), and an auditorium. The offices of the State Board of Education and the University of Tennessee Graduate Program will also be located in this building.

THE LAW SCHOOL ANNEX, consisting of one wing of the former campus school, provides air-conditioned classrooms (including one arranged as a typical courtroom) and offices for the Law School. An air-conditioned building which is immediately adjacent, houses the law library and study facilities.

THE UNIVERSITY LIBRARY, named in honor of former President John Willard Brister, was built in 1927; it has since been considerably enlarged, the latest addition having been completed in 1963. The collection at present numbers over 170,000 volumes, including microfilm and microprint. The microprint includes all U.S. Government publications since 1956. Subscriptions and files are maintained for general and specialized periodicals.

DORMITORIES AND OTHER HOUSING. There are five residence halls for women, providing accommodations for 914 women students; *Mynders Hall, West Hall, Scates Hall, Nellie Angel Smith Hall*, and a new six-story, air-conditioned dormitory which is not yet named.

There are four residence halls for men, providing accommodations for 566 men students; *Hayden Hall, North Hall, East Hall, and South Hall*.

Vets Village is a group of frame buildings containing 67 apartments; built after World War II to house veterans and their families, these units are now open to all married students, although veterans retain preference. Applications for occupancy should be made to the Dean of Men.

AUXILIARY BUILDINGS. *The Old Gymnasium* was in 1961 converted into studio and office space for WKNO-TV, the educational television station operated by the Memphis Community Television Foundation. *The Cafeteria*, with a seating capacity of 500, adjoins *The Student Center*, which contains a soda fountain, two snack bars, and facilities for

group meetings, games, and dancing. An additional snack bar is located in a wing of the former campus school building. All of these facilities are air-conditioned.

THE PANHELLENIC BUILDING, erected in 1959 and enlarged in 1963 by the national sororities with chapters on the campus, is an air-conditioned facility which affords suites for ten sororities and a hostess, guest room, kitchen, and ballroom.

THE UNIVERSITY AUDITORIUM, located in the air-conditioned Administration Building, seats 1200 and has a stage fully equipped for dramatic and musical productions.

THE BOOKSTORE provides air-conditioned, self-service shopping facility for text-books, and school supplies and equipment.

CHUCALISSA INDIAN VILLAGE AND MUSEUM. Chucalissa, prehistoric Indian town and museum, situated in the southwest corner of Shelby County on Mitchell Road, is operated by the University as a research and training facility. Excavation of the site is being undertaken, with students performing the archaeological field work under staff supervision. Adjoining acreage serves as a biological field station. Chucalissa also provides indoor and outdoor archaeological exhibits, open to the public throughout the year.

Extension Division

E. EARL CRADER, *Director*

Memphis State University has for a number of years conducted general education workshops. The increasing demand for these services has resulted in the organization of an Extension Division. The Extension Division was authorized by the State Board of Education in 1951 to afford an official avenue through which university services could be extended off-campus.

EXTENSION CLASS INSTRUCTION

Graduate courses are offered through the Extension Division of Memphis State University at centers where suitable arrangements are made in advance. Regularly employed graduate faculty members listed in this Bulletin teach graduate extension courses. The subject matter taught in extension classes is the same as that offered on campus. Regulations regarding the approval of extension courses toward requirements for the Master's degree are found on page 23 of this Bulletin.

OTHER EXTENSION SERVICES

Where circumstances justify, the Extension Division attempts to provide various types of help to organized groups within the service area. This assis-

tance may take the form of such activities as conferences, public addresses, consultative service, and other types of school and community aid. Regularly employed staff members of Memphis State University are available for this service.

To the end that an effective extension service may be carried on by Memphis State University, correspondence is invited with groups or individuals who are interested. Please address correspondence to:

EXTENSION DIVISION
School of Education Building, Room 135 B
Memphis State University
Memphis, Tennessee 38111

Admission To The Graduate School

The Graduate School is open to persons holding the Bachelor's degree from colleges and universities recognized by standard, general or regional accrediting agencies, whose undergraduate work has been of sufficient quality and scope to enable them to profitably pursue graduate study*. An entrance examination is required of all who are admitted to the Graduate School.

Admission to the Graduate School merely gives the privilege of taking course work. It does not in any way imply that the student is admitted to candidacy for an advanced degree.

Application blanks for admission to the Graduate School and dates of entrance examinations may be secured from the office of the Dean of Admissions all inquiries should be addressed to him.

Applicants for admission must submit an application and two official transcripts of their undergraduate credits before being considered for entrance into the Graduate School.

Applicants must present evidence of good health, moral character, and intellectual capacity necessary for pursuing graduate study.

Registration and Attendance

After being admitted to Graduate School, the student must arrange a personal conference with the Dean. During this conference the Dean will assign tentative advisers and will advise as to programs available in Graduate School.

The student at this early interview will be expected to declare his major and minor areas of study. Students who have previously declared

*NOTE: Undergraduate students at Memphis State University who are enrolled for courses which complete their undergraduate degree may apply for admission to graduate studies and in special cases be allowed to register for graduate courses not to exceed a total of 15 semester hours of combined course work.

major and minor areas of study but desire to make a change should arrange a conference with the Dean in order that the records may be revised.

Graduate students who notify the Dean of Admissions of their intentions to register will have their registration material ready for them when they arrive on the campus.

Graduate students who DO NOT notify the Registrar of their intentions to register will be delayed while the IBM office prepares their registration materials.

PROCEDURE OF REGISTRATION

1.—Registration cards are issued in the Registrar's Office ONLY.

2.—After securing registration materials, confer with major adviser, complete materials, and secure signatures of both major and minor advisers.

NOTE: New graduate students will be assigned major and minor advisers in the conference with the Dean of the Graduate School.

3.—Class cards will be secured from Departmental Chairmen.

4.—All materials must be presented to the Dean of Graduate School.

5.—After the registration is approved by the Dean, materials must be taken to the Office of the Business Manager where all fees must be paid. Registration is not complete until all fees are paid.

6.—Parking permits should be secured from the Dean of Men.

ADDING OR DROPPING COURSES OR CHANGING SECTIONS

After a graduate student has completed his registration, it cannot be changed without approval of the Dean of the Graduate School. The adjustment will originate in the office of the Dean, and the change-of-course must have the approval of the student's major adviser and the Dean.

WITHDRAWING FROM GRADUATE SCHOOL

Failure to give official notice of complete withdrawal from Graduate School in writing will result in a grade of "F" in each course for which the student was registered.

A withdrawal is not permitted within one week of the beginning of the final examination period of a semester or a summer term. Any student who withdraws after the drop period ends will have all courses not previously dropped recorded as: WP—Withdrew Passing or WF—Withdrew Failing. The parent or guardian of minor students will be advised of withdrawals.

Address your notice of withdrawal to:

DEAN, THE GRADUATE SCHOOL
Memphis State University
Memphis, Tennessee 38111

Tuition and Fees

All students registering for graduate work pay the Maintenance Fee as shown below. Non-residents of Tennessee are charged the Maintenance Fee plus Non-Resident Tuition as indicated.

A.—ON CAMPUS

Maintenance Fee—Full-time student.....	per semester	\$97.50
Non-Resident Tuition—Full-time student.....	per semester	82.50
Maintenance Fee—Part-time student.....	per semester hour	9.00
Non-Resident Tuition—Part-time student.....	per semester hour	9.00
Exception: All engineering courses are \$15.00 per semester <i>hour</i>		
plus \$9.00 for those who are non-residents of Tennessee.		

B.—OFF CAMPUS

Maintenance Fee—Part-time student.....	per semester hour	\$9.00
Non-Resident Tuition—Part-time student.....	per semester hour	9.00

D.—INDIVIDUAL LESSONS IN MUSIC

Music 505, 550, 551, 552, 553, 554, and 556 have the following fees:		
One thirty-minute lesson weekly.....	per semester	\$33.75
Two thirty-minute lessons weekly.....	per semester	\$67.50
Music 559 has the following fees:		
One thirty minute lesson weekly.....	per semester	\$60.00
Two thirty minute lessons weekly.....	per semester	120.00

E.—THESIS FEEper copy to be bound 2.50

F.—GRADUATION FEE15.00

G.—SUMMER SCHOOL

Students may register for both terms of summer school at the first registration period (waiting until the second summer term to select the courses for that term) and pay a total registration fee of \$65.00 for state residents and an additional \$55.00 for out-of-state residents. This option may not be exercised after the initial summer registration period. No refunds will be made after the initial period for refunds.

Students who register for each term separately will pay the regular \$9.00 per semester hour for state residents and an additional \$9.00 per semester hour for out-of-state residents.

ADVANCED DEGREES OFFERED

Memphis State University has been authorized to award the following advanced degrees:

1. Master of Arts
2. Master of Business Administration

3. Master of Science
4. Master of Science in Teaching

The University has had other advanced degrees approved by the State Board of Education but they are not being awarded at this time. They are:

1. Master of Arts in Teaching
2. Master of Education

General Requirements for the Master's Degree

Every graduate student and every prospective graduate student is expected to make himself thoroughly familiar with the regulations of the Graduate School and the requirements for degrees. Failure to follow the regulations and requirements almost inevitably results in complications for which the Graduate School cannot assume responsibility.

To facilitate communication, graduate students are expected to notify the Graduate Office of their changes of address. They should remember that all details connected with their work center in the Graduate Office.

ADMISSION TO CANDIDACY FOR THE MASTER'S DEGREE

To become a candidate for a degree, the student must file an application on blanks available at the office of the Dean. The student must indicate on the application the degree program he is choosing. The application must contain plans for a complete program of graduate study and be approved by a faculty adviser in both the major and minor areas.

Before the "Application for Admission to Candidacy for the Master's Degree" can be approved and the applicant can be officially admitted to candidacy for a Master's degree, the student must have satisfied the following requirements:

1. He must have completed some graduate work in residence.
2. He must have completed prerequisite undergraduate requirements of not less than 18 semester hours in his graduate major area and not less than 6 semester hours in his graduate minor area, except in special cases approved by the Dean of the Graduate School and the Chairman of the department concerned.
3. He must have at least a "B" average on all graduate work which has been completed during the six calendar years immediately preceding the date of the application for degree candidacy.
4. The general field of his thesis must have been approved, if his program includes the requirement of a thesis.

5. His graduate work up to this point must be acceptable in quality and quantity to his major and minor departments as attested by their approval of his program.
6. His entire program must conform to the general regulations of the Graduate School and the requirements for his particular major and minor.

Every student who files an "Application for Admission to Candidacy for the Master's Degree" will receive from the Graduate office an approved copy of the application or a letter explaining why approval has been withheld.

SEMESTER HOUR REQUIREMENTS

The Master's degree program shall include 30-33 semester hours of course work as follows, 18-21 semester hours in a major area, 8-12 semester hours in a minor area, 4 semester hours or less in general electives.

If a thesis of 3-6 semester hours is submitted, the degree may be completed with 30 semester hours. The thesis shall be in the major area and the overall major requirements shall be 18 semester hours.

If no thesis is submitted, the overall degree requirements shall be 33 semester hours, with a minimum of 21 semester hours in the major area.

All requirements for the degree must be completed within six years from date of the candidate's original registration for graduate courses.

At least 18 semester hours of the courses in a student's program must be of the type designated as primarily for graduate students (500 level courses). At least 12 semester hours of this must be done in the major. The department in which the minor is taken will determine whether or not any 500 level courses are required in the minor area.

Work done by graduate students registered for G-400 courses must be of a higher quality than that required of undergraduates. Also, the graduate student is required to do additional work. This may consist of research or of such other work as the instructor may demand.

AMOUNT OF WORK PERMITTED

Sixteen semester hours shall be the maximum load for students devoting full time to graduate study. Only full time students may register for more than twelve semester hours of course work in any one semester, including courses on campus, extension courses, and courses to be transferred from other institutions.

Graduate students who are employed on a full time basis may not register for more than two graduate courses.

A student may register for 18 semester hours during his final academic semester for the purpose of graduating, if he has had a 3.5 average on previous graduate studies completed.

Certain residence courses, designated as "problems courses," are described in this bulletin. Seven semester hours of credit through problems courses may be applied to degree requirements; however, not more than four semester hours may be applied toward the major or more than four semester hours toward the minor. A file of the work submitted by graduate students for credit in problems courses will be maintained in the Graduate Office, and graduate students will not be allowed to register for more than one (1) problems course in any one (1) semester or full summer session.

MINIMUM RESIDENCE REQUIREMENTS

Completion of two semesters of residence study is required. It may be computed on the basis of a minimum of twelve semester hours of credit as the equivalent of one semester of residence.

CREDIT FOR WORK COMPLETED ELSEWHERE AND BY EXTENSION

There is no automatic transfer of credit toward a graduate degree, but, in general, residence work completed at another accredited graduate school may be accepted for not more than six semester hours of course credit toward a Master's degree. However, such work will not reduce the minimum residence requirement for the Master's degree.

Six semester hours of course work completed through the Memphis State University Extension Division may be applied toward degree requirements; however, not more than three semester hours may be applied toward major requirements or more than three semester hours toward minor requirements.

Extension work taken with another institution is not transferrable.

Six semester hours of transfer work may be applied toward degree requirements; however, not more than four semester hours may be applied toward major requirements or more than four semester hours toward minor requirements.

Not more than nine semester hours of any combination of extension work and work completed elsewhere may be credited toward the course requirements for the Master's degree.

Graduate credit is never granted for courses taken by correspondence. The grading system in the Graduate School is as follows:

Grade of A—Exceptionally high scholarship—four points for each semester hour.

Grade of B—Superior scholarship—three points each semester hour.

Grade of C—Average scholarship—two points each semester hour.

Grade of D—Poor but passing—one point each semester hour.

Grade of F—No point value.

Grade of I—Incomplete.

Grade of P—In progress.

An average grade of "B" must be maintained in ALL graduate work, and credit earned with a "D" grade may not be counted toward meeting the major or minor requirements for the Master's degree.

Work with a grade of "F" will be included in the grade average computation.

Not more than 7 semester hours of credit with a grade of "C" may be applied toward meeting the degree requirements, and not more than 4 semester hours of "C" may be accepted in the major, and not more than 4 semester hours of "C" in the minor area.

A grade of "I" will become an "F" unless removed within the first four weeks of the next semester that the student is in residence. The deficiency, however, must be corrected within one calendar year from the date the "I" was recorded.

Instructors of problems courses shall be allowed to give a grade for "work in progress" (P) to extend the time for the completion of such research. In the event this time extension is for longer than one calendar year, the responsible instructor shall present a written recommendation to the Office of the Dean of Admissions and to the Dean of the Graduate School for an official dropping of the course or for the assignment of a specific grade.

A "P" grade on a *thesis* may be extended for a period of one year from the recorded date without special permission or penalty. Requests for more than one year extension of time must be made in writing.

COMPREHENSIVE EXAMINATION FOR THE MASTER OF ARTS DEGREE

Before being recommended for graduation, every candidate for the Master's degree is required to pass a final comprehensive examination in his major subject and in his minor subject; it may be oral or written or both, at the discretion of the departments concerned.

It is the student's responsibility to confer with his major and minor departments regarding the time and place of the examination. No reminders will be sent him by the departments or by the Graduate Office.

STATEMENT OF INTENTION TO GRADUATE

Candidates for the Master's degree must file a statement of intention to graduate with the Dean of the Graduate School at the beginning

of the semester, or session, in which the academic requirements for the degree are to be completed. The degree desired shall be shown on the application form.

Programs of Study

A variety of programs of study leading to the Master's degree are offered in the Graduate School of Memphis State University. Candidates for a degree must design a degree plan which has the approval of their major adviser. This plan will include both a major and minor area of study, and the degree sought.

MAJOR AREAS:

- 1.—In the department of ACCOUNTANCY, graduate students who select Accountancy as a major area will consult the departmental chairman or with the adviser assigned to him as to the program of study; however, Accounting 511, Accounting Theory I (3), and Accounting 583, Current Accounting Problems I (3), are required courses in the Accountancy major.
- 2.—In the department of BIOLOGY, graduate students who select Biology as a major area will consult their major adviser as to the program of study; however, Biology 596 (6), is required of all those who major in Biology.
- 3.—In the department of CHEMISTRY, graduate students who select Chemistry as a major area of study will consult their departmental graduate committee as to the program of study. The program shall be consistent with the policies of the department of Chemistry. Chemistry 596 is required of all those who major in Chemistry.
- 4.—In the department of CURRICULUM AND INSTRUCTION:
 - A. Preparation as a Master Teacher:
Elementary School
Secondary School
 - B. Preparation as a Guidance Counselor.
 - C. Preparation in the Area of Special Education:
Teaching the Educable Mentally Retarded
Teaching the Hospitalized, Homebound and Crippled Children
 - D. Preparation as a Curriculum Director or Supervisor of Instruction.

All students majoring in this department must complete one of the above programs of study, requirements for which will be outlined by the student's major adviser. In the chosen program each student will be required to complete one course in each of the following four fields: (1) Educa-

tional Foundations; (2) Curriculum Development; (3) Educational Psychology, Guidance, and Special Education; (4) Research and Methodology.

5.—In the department of EDUCATIONAL ADMINISTRATION AND SUPERVISION:

A. Preparation as a School Principal:

Elementary School

Secondary School

B. Preparation as a School Superintendent.

C. Preparation as a Supervisor of Attendance.

D. Preparation as a Supervisor of Instruction.

All students majoring in this department must complete one of the above programs. The following courses are required in each program:

Education 537—Techniques of Educational Research (3)

Education 581—Public School Organization and Administration (3)

Education 571—City and County School Supervision (3)

6.—In the department of ENGINEERING, graduate students who are eligible to enroll will consult their major adviser as to a program of study. To be eligible to enroll, the student must hold a degree in Engineering from an accredited institution, or meet the alternate requirements. The alternate plan requires a baccalaureate degree with emphasis in mathematics, physical science, and applied science, as well as social science and the humanities. The major professor or the Graduate Dean will provide detailed information upon request.

7.—In the department of ENGLISH, graduate students who select English as a major area will consult their major adviser as to the program of study.

8.—In the department of GEOGRAPHY, graduate students who select Geography as a major area will consult their major adviser as to the program of study.

9.—In the department of HEALTH AND PHYSICAL EDUCATION, graduate students may place emphasis in the area of Health or physical Education. Their major adviser will be consulted as to their program of study.

10.—In the department of HISTORY, graduate students who select History as a major area will consult their major adviser as to the program of study; however, History 500—Historical Method (3), is a required course in the History major.

11.—In the department of MANAGEMENT, FINANCE AND ECONOMICS, the student may choose to concentrate in one of the following fields:

- A. Management
- B. Finance
- C. Economics

Students majoring in this department will consult with the Departmental Chairman or with the adviser assigned to him as to the program of study.

12.—In the Department of MUSIC, concentration may be in either

- A. Music Education, or
- B. Applied Music (Composition, piano, voice, organ, violin, violoncello, harp, winds, percussion).

Each student majoring in this department must select one of the above concentration areas and must complete the following courses in a common core:

Music 501 and 502—A Study in Musical Styles (6)

Music 511 and 512—Theory I and II (6)

Those in Music Education must complete the following courses in addition to the twelve hours in the common core:

Music 516—Advanced Conducting (3)

Music 517—Choral Literature and Techniques (3) OR Music 518, Instrumental Literature and Techniques (3)

Music 520—Music Education Seminar (3)

Applied Music (6)

Professional Education (6)

Those in Applied Music must complete the following courses in addition to the twelve hours in the common core:

Applied Music (12)

Recital, or Thesis (3)

Humanities (6)

Further information concerning admission prerequisites to graduate theory and to applied music courses may be obtained by writing to the Chairman of the Department of Music.

13.—In the department of PSYCHOLOGY, graduate students who select Psychology as a major area will consult their major adviser as to the program of study.

14.—In the area of SCIENCE FOR TEACHERS, a Master of Science in Teaching degree will be awarded to those students who complete

a program designed for high school science teachers. The student should consult the chairman of the department of Biology or Chemistry and Physics according to his interest. The departmental chairman may approve or require certain courses in any or all of the following areas, natural sciences, physical sciences, geography and mathematics.

MINOR AREAS:

- 1.—In the department of ACCOUNTANCY, 9 semester hours as approved by the minor adviser.
- 2.—In the department of BIOLOGY, 8 semester hours as approved by the minor adviser.
- 3.—In the area of BUSINESS EDUCATION AND OFFICE MANAGEMENT, 9 to 12 semester hours as approved by the minor adviser.
- 4.—In the department of CHEMISTRY, 8 semester hours as approved by the minor adviser.
- 5.—In the department of CURRICULUM AND INSTRUCTION, 9 semester hours as approved by the minor adviser including Education 561.
- 6.—In the department of EDUCATIONAL ADMINISTRATION AND SUPERVISION, the following courses are required for a minor.
 - A. Education 581 Public School Organization and Administration (3).
 - B. Six semester hours selected courses.
- 7.—In the department of ENGLISH, 9 semester hours as approved by the minor adviser.
- 8.—In the department of GEOGRAPHY, 9 semester hours as approved by the minor adviser.
- 9.—In the department of HEALTH AND PHYSICAL EDUCATION, 9 semester hours as approved by the minor adviser, 3 semester hours of which must be selected from the following two courses:
P.E. 562—Curriculum Construction in Health Education and Physical Education (3).
P.E. 571—Development and Supervision of an Elementary School Health and Physical Education Program (3).

- 10.—In the Department of HISTORY, 9 semester hours from the field of American History and the field of European History, each approved by the minor adviser.
- 11.—In the broad area of the HUMANITIES, 12 semester hours, to be selected from History, English, Mathematics, and Philosophy or Psychology.
- 12.—In the area of LIBRARY SERVICE, 9 semester hours may be taken to satisfy the minor requirement.
- 13.—In the department of MANAGEMENT, FINANCE AND ECONOMICS, 9 semester hours as approved by the minor adviser.
- 14.—In the Department of MARKETING, 9 semester hours as approved by the minor adviser.
- 15.—In the Department of MATHEMATICS, 9 semester hours as approved by the minor adviser.
- 16.—In the Department of MUSIC, 12 semester hours, to be divided into two six-hour sequences as approved by the minor adviser.
- 17.—In the department of PHYSICAL SCIENCES, 9 or 12 semester hours in courses approved by the chairman of the department and the student's major professor.
- 18.—In the Department of PSYCHOLOGY, 9 semester hours as approved by the minor adviser.
- 19.—In the broad area of SCIENCE, 12 semester hours to be selected from Biology, Chemistry, Mathematics, and certain designated courses in Geography.
- 20.—In the area of SCIENCE FOR TEACHERS, 12 semester hours to be approved by the adviser from the Department of Biology or Chemistry and Physics.
- 21.—In the broad area of SOCIAL SCIENCE, 12 semester hours, to be selected from History, Geography, Political Science and Sociology.

Course Offerings

Accountancy

MR. THOMPSON, *Chairman*, MR. CRAWFORD, MR. CURBO, MR. SPICELAND, MR. WRAY

G421 Advanced Accounting I. (3).

Partnerships, consignments, installment sales, insurance, statement of affairs, receiver's accounts, statement of realization and liquidation, annuities, estates and trusts. PREREQUISITE: Acctg. 312. Fall semester.

G422 Advanced Accounting II. (3)

Agencies, home and branch offices, consolidations, mergers, foreign exchange. PREREQUISITE: Acct. 312. Spring semester. (This course may be taken before Acctg. 421.)

G424 Auditing I. (3).

Ethics in accounting practices, auditing standards and procedures, programs of audit of various accounts, construction and indexing of various papers, reports to clients. Fall semester. PREREQUISITE: Acctg. 312 and 332.

G425 Auditing II. (3).

Application of auditing principles to verification of financial statements, preparation of reports, case studies applicable to specific industries, current trends. A practice audit is carried out. PREREQUISITE: Acctg. 424. Spring semester.

G445 Accounting Systems. (3).

Problems involved in designing accounting installations for various types of businesses, including the designing of clerical departments and planning of required mechanical devices. PREREQUISITE: Acct. 312. Spring semester.

G446 Controllership. (3).

Training in the field of administrative accounting, duties and functions of the controller, organization of the controller's office. PREREQUISITE: Acctg. 332. Fall semester.

G451 Federal Income Tax I. (3).

Regulations pertaining to income taxation of individuals and partnerships. PREREQUISITE: Acctg. 311 and 312, or permission of instructor. Fall semester.

G452 Federal Income Tax II. (3).

Laws and regulations pertaining to taxation of corporations, estates and fiduciaries. Also considered: Federal Gift Taxes; Federal Death Taxes; F.I.C.A. Tax, Federal and State Unemployment Taxation. PREREQUISITE: Acctg. 451. Spring semester.

G454 Governmental Accounting. (3).

Accounting theory and practice applicable to Federal, State, and Local Government; and to nonprofit institutions; budgetary control; classification, control, and use of funds; financial statements and reports. PREREQUISITE: Acctg. 312. Fall semester.

511 Accounting Theory I. (3).

A study of the broad aspects and objectives of accounting with emphasis on generally accepted accounting principles, modern accounting trends, and

contemporary controversial topics, through a study of the current releases of the American Institute of Certified Public Accountants, the American Accounting Association, and other research related to changing accounting concepts.

512 Accounting Theory II. (3).

A further study of the development of accounting theory and the influence of professional accounting societies and regulatory agencies upon the accounting profession. PREREQUISITE: Accounting 511.

524 Advanced Auditing. (3).

Review and refinement of generally accepted auditing standards, procedures and extension of auditing procedures; preparation of audit reports and study of special investigations; study of auditing research bulletins of the American Institute of Certified Public Accountants, and pronouncements of the S.E.C. and other regulatory agencies. PREREQUISITE: Accounting 324 or 424 or permission of instructor.

531 Standard Cost. (3).

Budgets, determination of standards, variances and their functions, cost reports, profit projecting. PREREQUISITE: Acctg. 332.

551 Advanced Taxation. (3).

Selected research and study in the taxation of individuals and business organizations by Federal and state governments; preparation of selected state and Federal tax returns including those associated with income, excise, gift, death, sales, and payroll; tax practice and procedures. PREREQUISITE: Accounting 452 or permission of instructor.

581 Internship in Accounting. (3).

Graduate students interested in public accounting, after receiving approval of the accounting faculty, are placed in offices of cooperating public accounting firms to receive on-the-job training under the direct supervision of a certified public accountant and the general supervision of the college accounting staff. Credit allowed upon acceptance of report of work done, verified by supervising accountant, and completion of a qualifying examination. Minimum time: 500 hours. Both semesters.

583 Current Accounting Problems I. (3).

A cross section of problems encountered in CPA examinations, including such items as receiverships, realization and liquidation statements, estates and trusts, cost problems, partnerships, and consolidations. PREREQUISITE: Permission of instructor.

584 Current Accounting Problems II. (3).

Continuation of study of current accounting problems encountered in CPA examinations; review of business law relating to CPA examinations with emphasis on the Uniform Acts; brief review of accounting theory as it pertains to the CPA examination. PREREQUISITE: Permission of instructor.

591 Problems in Accounting. (1-3).

Directed independent research projects in an area selected by the student with the approval of the staff member supervising. PREREQUISITE: Accounting G421 or equivalent.

A. Public Accounting

B. Industrial Accounting

C. Governmental Accounting

593-6 Thesis (3-6).

Application for writing a thesis must be filled out on an approved form after consultation with the major professor and filed with the Dean of the Graduate School.

Biology

MR. BROWN, *Chairman*, MR. BANCROFT, MR. HOWELL, MR. RUDOLPH, MR. SMITH
MR. WELBOURNE

G401 Plant Morphology. (4).

Comparative studies of general structure of lower plants, exclusive of bacteria and related forms, through the Bryophytes. *Two hours lecture; four hours laboratory.* PREREQUISITE: Biology 141 or its equivalent.

G402 Plant Morphology. (4).

A continuation of 401 in which the vascular plants are considered. *Two hours lecture; four hours laboratory:* PREREQUISITE: Biology 141 or its equivalent.

G403 Vertebrate Histology. (4).

Microscopic study of normal tissues and organs of the vertebrate body. *Two hours lecture; four hours laboratory.*

G404A Histological Technique. (3).

Method of preparing animal tissues for microscopic study, theories of staining, and preparation of permanent mounts of animal tissues. *One hour lecture; four hours laboratory.* PREREQUISITE: Five hours of zoology or consent of instructor.

G404B Histological Technique. (3).

A study of the methods of preparing plant tissues for microscopic study; theories of staining and preparation of permanent mounts. Credit not permitted for both 404A and 404B. PREREQUISITE: Biology 141 or consent of the instructor. *One lecture, four laboratory hours per week.*

G405 Sanitary Bacteriology (4).

A study of micro-organisms in relation to water and sewage; disinfection and disinfectants. *Two hours lecture; four hours laboratory.* PREREQUISITE: Biology 302 or its equivalent.

G406 Microbiology of Foods. (4).

Microorganisms in natural and processed foods; origins, nature and effects on foods; enumeration; and the relation to health. PREREQUISITE: Biology 302 or the equivalent. *Two lecture and four laboratory hours per week.*

G410 Organic Development (3).

The consideration of the theoretical and scientific evidences concerning the origin, development, and establishment of the major groups of living and extinct animals and plants.

PREREQUISITE: one year of biology. Recommended for biology majors and general students as well.

G415 Bacterial Physiology. (4).

A survey of bacterial physiology including growth, nutrition, biosynthesis, and adaptation. *Three hours lecture; two hours laboratory:* PREREQUISITE: Bacteriology 302, or its equivalent, and at least one year of Chemistry.

G420 Plant Taxonomy. (4).

A study of the principles of plant taxonomy. Special attention will be given to the classification of selected vascular plant families. Lectures, laboratory and field trips. PREREQUISITE: Consent of the instructor.

G425 Plant Physiology. (4).

A study of the principles of physiology and their application to the living organism as a whole, with emphasis on higher plants. *Two hours lecture; four hours laboratory.* PREREQUISITE: Consent of instructor.

G426 Physiology of the Lower Plants. (2).

A study of the principles of physiology and their application to the lower plant groups, exclusive of the bacteria and related forms. PREREQUISITE: Permission of the instructor. *Two lecture, four laboratory hours per week.*

G430 Invertebrate Zoology. (4).

An advanced course dealing with the invertebrate animals, exclusive of the insects. Special attention is given to phylogeny, organology, and taxonomy. *Two hours lecture; four hours laboratory.* PREREQUISITE: Biology 142 or its equivalent.

G440 Field Zoology (4).

Designed to acquaint the student with a field knowledge of the animals of this locality. Identification, life history, and habitat will be considered. Birds and insects to be omitted. *Two lecture hours; four hours laboratory.* PREREQUISITE: eight hours of biology including five hours of zoology.

G442 Plant Pathology. (4).

A study of bacteria, fungi, viruses, nematodes, parasitic seed plants and environmental unbalance as the causal agencies of plant diseases. PREREQUISITES: *Two lecture, four hours laboratory per week.*

G450 Cellular Physiology. (4).

A study of the fundamental unit of all living things. The basic activities of cells are investigated—nutrition, adaption, growth and reproduction. *Two hours lecture; four hours laboratory.* PREREQUISITE: Biology 341.

G460 Comparative Neurology. (4).

A detailed study of the nervous system of selected animals with emphasis on the vertebrates. *Two hours lecture; four hours laboratory.* PREREQUISITE: Consent of the instructor.

502-I Field Studies in Plant Biology. (3).

A taxonomic study of the flora of the surrounding area. Consideration will be given to the principles of taxonomy and to selected principles of ecology which will be encountered in the field work. The course will consist of three one-hour lecture-discussion periods and one one-half day laboratory-field per week. Extensive field trips in the local area.

503-I Special Topics in Microbiology. (3).

This course is a brief survey of the microbiological world and the relation of micro-organisms to man. Recent developments in the fields of bacteriology, immunology, and virology will be reviewed. In the laboratory basic techniques in the cultivation of bacteria, yeasts, and molds will be stressed. Laboratory experiments selected will be suitable for use in high school classes and can be performed with a minimum of equipment or equipment which may be improvised.

505 Determinative Bacteriology. (4).

Methods of bacteriological technique, pure culture studies, and classification

of bacteria. PREREQUISITE: Biology 302, one year of introductory Biology, one year of inorganic chemistry, with organic chemistry desirable. *Two one-hour lectures, two two hour laboratories.*

510 Seminar in Biological Literature. (2).
Sources of literature in the field of biology and experience in the utilization of such sources in biological research. Class reports and term papers required. Required of all students as a prerequisite for writing a thesis.

512 Advanced Systematic Entomology. (3).
An advanced course in insect taxonomy. The principles of insect nomenclature with specific emphasis given to procedures. Intensive study is made in particular groups. PREREQUISITE: Biology 312 or its equivalent.

513 Seminar in Botany. (2).
A consideration of selected topics in the plant sciences in conference with a member of the staff. PREREQUISITE: Consent of the instructor. *Two one-hour conferences per week, hours may be by arrangement if not scheduled.*

514 Seminar in Zoology. (2).
A consideration of selected topics in the animal sciences, in conference with a member of the staff. PREREQUISITE: Consent of the instructor. *Two one-hour conferences per week, hours may be by arrangement if not scheduled.*

515 Advanced Microbiology. (4).
Advanced theory and principles of Microbiology with emphasis on morphology and bacterial metabolism. PREREQUISITES: Biology 302 and one hour of introductory Biology, one year of inorganic chemistry, with organic chemistry desirable. *Two one-hour lectures, two two-hour laboratories.*

530 Modern Biological Methods. (2).
A consideration of recent developments in biological techniques which may be applied in the study of living organisms. *Two one-hour lectures.*

550 Cytology. (4).
Detailed studies of the functions and composition of individual cellular components, nuclear-cytoplasmic relationships, chromosomal variations and their genetic expression in plants. PREREQUISITES: Biology 141 and 142 or equivalent. *Three hours lecture, two laboratory hours per week.*

552 Advanced Plant Ecology. (4).
Considerations of plant distribution on a worldwide and a local basis with emphasis on the factors influencing plant distribution and growth. PREREQUISITES: Biology 352 or equivalent. *Two hours lecture, four laboratory hours per week.*

560 Protozoology. (4).
A survey of the free living and parasitic protozoa. Consideration is given to structure, taxonomy, habitat, and life history. *Lecture two hours; laboratory four hours.*
PREREQUISITE: five hours of zoology or its equivalent.

590 Research. (2-4).
The student through consultation, reading, and laboratory work will investigate selected topics in some phase of biology. A formal paper giving a review of the literature and the results of the investigation will be required.

591 Special Problems. (4).
Qualified students may be given special problems which they will investigate. The investigations will be pursued under the supervision of a member of the graduate staff and reported in the form of a written paper.

596 Thesis. (6).

All students majoring in Biology must write a thesis based on research done under the supervision of his major professor.

Business Education and Office Management

MR. JENNINGS, *Chairman*, MR. ROBERTS

G442 Office Management I. (3).

To acquaint the student with modern methods used in office organization and management. Topics: Role of Office Management, Scientific Office Management; Office Reports; Office Correspondence; Calculating and Checking; Filing; Records Retention; Duplicating; Handling the Mail; Planning Procedures; Planning for Equipment; Office Machines; Automation; Planning for Office Space; Physical Working Conditions and Office Layout. Fall Semester.

G452 Executive Communication. (3).

Methods and techniques of communication are critically examined through the writing of case problems in correspondence with emphasis placed upon principles and correct writing; and in reports with importance placed upon the collection, analysis, organization, and presentation of authentic data. Open to graduating seniors and to graduate students, the course is primarily designed for the student who has had no basic study in either business correspondence or business report writing on the undergraduate level.

542 Office Management II. (3).

Problems in actuating office employees and controlling the work of the office. Topics: Motivating Office Personnel; Job Evaluation; Recruiting and Training Office Employees; Office Supervision; Standards and Standardization; Quantity and Quality Control; Improving Procedures; Simplification; Office Forms; Measuring and Timing Office Work; Office Manuals; Office Costs and Budgets. Spring semester.

581 Principles and Foundations of Business Education. (3).

The history, philosophy, principles and objectives of business education; curriculum problems; contribution of business education to general education; research problems and current business education literature.

582 Improvement of Instruction in High School Business Subjects. (3).

A critical evaluation of content, visual aids, and methods in high school business subjects.

591 Problems in Business Education. (1-6).

Directed independent research projects in an area selected by the student with the approval of the staff member supervising. Prerequisite: Approval of supervising teacher and departmental chairman.

592 Seminar in Business Education. (3).

The purpose in this course is twofold: (a) to learn the methods and techniques of evaluating significant research studies and other current business education and related literature, and (b) to evaluate the progress that has been achieved in the conclusions of such literature to guide practical school use.

Chemistry and Physics

MR. FOX, *Chairman*, MR. ALBRITTON, MR. CLAYPOOL, MR. HOLMES, MR. IJAMS,
MR. KARRAKER, MR. MARSHALL, MR. ROBINSON, MR. SCHIRMER, MR. SPELL,
MR. WOOLLETT

Chemistry

G401, G402 Biochemistry. (4, 4).

This course covers the fundamental physical and chemical mechanisms involved in the vital processes of living organisms.

PREREQUISITES: Chemistry 321, 322. *Two hours lecture and four hours laboratory per week.*

G405 Glass Manipulation.

A laboratory course in the fundamentals of glass manipulation and the construction and repair of simple laboratory apparatus. *Six laboratory hours per week.*

G420 Advanced Analytical Chemistry. (3).

An advanced treatment of the theory and calculations of gravimetric and titrimetric analysis.

PREREQUISITES: Chemistry 342, or permission of the instructor. *Three lecture hours per week.*

G422 Instrumental Analysis. (4).

Applications of recent developments in the field of instrumental analysis. The theory and use of colorimetric, spectrophotometric and electrometric methods of chemical analysis. Experience will be gained in the use of the Beckman Du spectrophotometer and other related colorimetric and spectrometric instruments.

PREREQUISITE: Chemistry 421. *Two hours lecture and four hours laboratory per week.*

G431 Organic Qualitative Analysis (3).

Characterization of known and identification of unknown, pure organic compounds by solubility tests, class reactions, specific test reagents, and the preparation of derivatives. *One hour lecture and six hours laboratory per week.* PREREQUISITES: Chemistry 221, 222 and Chemistry 321, 322.

501I Principles of Chemistry. (3).

This course, open only to high school science teachers, covers the fundamental principles of chemistry usually encountered in a general chemistry course, but presented in greater depth. Topics included are: atomic structure, bonding, periodicity, acid-base theory, chemical equilibrium, ionic equilibria and qualitative analysis, oxidation potentials, electro-chemistry and nuclear chemistry. The quantitative aspects of most of these topics are emphasized. This course cannot be applied toward a major or minor in chemistry or physics.

PREREQUISITE: One year of college chemistry or the permission of the instructor. *Three hours lecture and three hours laboratory per week.*

502I Principles of Organic Chemistry. (3).

This course is open only to high school science teachers. It is the systematic presentation of the fundamental principles of organic chemistry with interpretation of structure and properties in accord with modern atomic and molecular theory. Emphasis is placed upon the sources and uses of

organic compounds in our daily lives. Special topics will be developed that will familiarize the high school teacher with the recent advances in the field and areas suitable for special projects for high school students. Laboratory experiments and demonstrations will be developed and performed which may be adapted for use in high school courses. This course cannot be applied toward a major or minor in chemistry or physics.

PREREQUISITE: Two years of college chemistry or Chemistry 5011. *Three hours lecture and three hours laboratory per week.*

508I Analytical Chemistry. (3).

PREREQUISITE: Two years of college chemistry or Chemistry 5011. This course stresses recent analytical methods. It covers the fundamental principles of analytical chemistry including some gravimetric and titrimetric methods but with major emphasis on modern instrumental techniques. These include: ultraviolet, visible and infrared spectrophotometry, potentiometric, conductometric, voltametric and electrolytic methods; and both liquid and gas phase chromatography. **PREREQUISITE:** Chemistry 5011. *Three lecture hours per week.*

511-512 Advanced Courses in Inorganic Chemistry. (3-3).

A further and more advanced study of inorganic chemistry. A systematic study of elements from the standpoint of the periodic law and attention will be given to present day interpretations of inorganic chemistry. Three hours lecture per week plus some additional laboratory work.

521 Principles of Analytical Chemistry. (3).

An advanced study of the theory and practice of quantitative analysis. **PREREQUISITE:** Chemistry 412.

Three hours lecture per week.

531 Intermediate Organic Chemistry. (3).

Modern theories and applications of methods of synthesis as applied to practical problems of preparation of organic compounds. This course includes an extensive treatment of the structure and mechanism of reactions of aliphatic, carbocyclic, and heterocyclic materials. Three lectures per week. **PREREQUISITES:** Chemistry 321, 322.

533 Organic Preparations. (3).

The preparation and properties of organic compounds. Introduction to research methods.

PREREQUISITES: Chemistry 211, 212, 321, 322. *One hour lectures and four hours laboratory per week.*

536 Chemistry of Natural Products. (3).

A study of the structures, reactions and methods of synthesis of natural occurring organic compounds. Particular emphasis will be placed on alkaloids, steroids and terpenes.

PREREQUISITE: Chemistry 322. *Three lecture hours per week.*

541 Advanced Physical Chemistry. (3).

Thermodynamics in relation to chemical equilibria and reactivity, including such topics as isothermal and adiabatic expansions, cyclic processes, heat content, specific heats, entropy, enthalpy, free energy, and vapor pressures. **PREREQUISITES:** Chemistry 412 and Mathematics 312.

593-596 Chemical Research and Thesis and Seminar. (3 or 6).

The original investigation of an assigned problem in the area of graduate study to be carried out under the supervision of a qualified member of the

staff. This investigation will furnish the material for a thesis. Scientific articles, progress reports, and special problems of interest to chemists are reviewed and discussed by the student in seminars each semester, participation in which is required of all graduate chemistry majors each semester. A maximum of six semester hours credit is allowed toward a master's degree.

Physics

G411 Atomic and Nuclear Physics. (4).

A study of atomic structure and behavior, the interaction of atomic particles, nuclear structure, and subatomic particles, radiation and its properties and origin, with some consideration of applications of recent developments in physics. PREREQUISITES: Physics 212 or 252; Mathematics 312. *Three lecture, three laboratory hours per week.*

G412 Atomic and Nuclear Physics. (4).

A continuation of Physics G411. PREREQUISITE: Physics G411. *Three lecture, three laboratory hours per week.*

G421 Optics. (4).

Geometrical and physical optics including such topics as thin lenses, spherical mirrors, lens aberrations, optical instruments, waves, interference, diffraction, absorption, transmission, and scattering. PREREQUISITES: Physics 212 or Physics 252; Mathematics 312. *Three lecture, three laboratory hours per week.*

G422 Optics. (4).

A continuation of Physics G421. PREREQUISITE: Physics G421. *Three lecture, three laboratory hours per week.*

G431 Radioisotope Technology. (3).

Properties and detection of radiation, production of isotopes, use of detection devices, radiation chemistry, thickness and density gauging, activation analysis, moisture measurement, safety procedures analytical tracer techniques, industrial radiography, procurement of radioisotopes and radioisotope licenses, and design of radiochemical laboratories. PREREQUISITE: College course in physics, chemistry, and mathematics. *Two lecture, two laboratory hours per week.*

G451 Thermodynamics. (3).

A mathematical treatment of thermodynamics, including such topics as work, energy, enthalpy, entropy, reversible and irreversible processes, equilibria, specific heats and phase transitions. PREREQUISITES: 212 or 252 and Mathematics 312. *Three lecture hours per week.*

5011 General Physics for High School Teachers. (3).

The course will consist of three one-hour lectures and one two-hour laboratory per week. It is a course designed to cover the basic and fundamental concepts of mechanics, heat, sound, light, electricity and magnetism, atomic and nuclear physics. These topics will be covered by lecture, demonstrations, and actual laboratory experiments. Daily problem assignments, as well as weekly laboratory reports and outside readings, will be required for each participant. Selected topics will be adequately covered and emphasized. Credit for this course does not apply toward a major or minor in chemistry or physics.

502I Fundamental Concepts of Contemporary Physics for High School Teachers. (3).

The course will consist of three one-hour lectures and one two-hour laboratory session per week. The course material will be based to a great extent upon the topics covered in the original Volume 4 of the Physical Science Study Committee and will include many of the newer topics emphasized in the modern high school texts actually in use today. Electronics, the newer phases and concepts of electricity and magnetism, x-rays, radioactivity, and the basic principles of atomic and nuclear physics will be covered. The principle objective of the course will be to strengthen the background of those teachers now in the field of physics and to serve as a basis for more detailed study in the fields of atomic and nuclear physics. Credit for this course does not apply toward a major or minor in chemistry or physics.

503I Selected Topics in Modern Physics for High School Teachers. (3).

Some of the more advanced topics of atomic and nuclear physics, together with the basic concepts of solid state physics, electronics, and space technology will be presented. Laboratory experience with some of the more advanced electronic and nuclear equipment will be provided. Three lecture hours per week. PREREQUISITE: Physics 501I.

Physical Science

G405-I General Science for High School Teachers. (3).

A study of the fundamental principles of astronomy, chemistry, geology and physics as they relate to the understanding and teaching of general science. Classroom experiments and demonstrations will be included.

501-I Astronomy. (3).

A course in astronomy open to junior and senior high school teachers of science.

Curriculum and Instruction

MR. RUMBLE, *Chairman*, MR. BROWNLEE, MR. DOWD, MR. KRAUSE, MR. NOTHERN, MISS SHUBKAGLE, MR. SMITH, MRS. STEPHENSON, MR. SWEAT, MR. UNDERWOOD

G401 Seminar in World Literacy. (3).

A survey of world literacy programs in the 20th Century, emphasizing techniques used; the development of the Laubach method, with demonstrations and practice in teaching it; the significance of graded literature and the techniques of writing for the new adult reader; tests for readability; the preparation of primers; campaign administration and promotion; and an introduction to linguistics. This is a concentrated course to be completed in two weeks and offered at announced intervals.

G415 Directed Student Teaching in the Secondary School. (3-9).

Observation of the growth and development of pupils and of methods of teaching; participation in school activities, culminating in assuming responsibility for teaching entire groups.

G416 Directed Student Teaching in the Secondary School. (3-6).

For the student who has completed six semester hours or less of student teaching on the secondary level and desires some additional experience.

G423 Directed Student Teaching in the Kindergarten. (3-6).
Observation of the growth and development of pupils and of methods of teaching; participation in school activities, culminating in assuming responsibility for teaching entire groups.

G425 Directed Student Teaching in the Elementary School. (3-9).
Observation of the growth and development of pupils and of methods of teaching; participation in school activities, culminating in assuming responsibility for teaching entire groups.

G426 Directed Student Teaching in the Elementary School. (3-6).
For the student who has completed six semester hours or less of student teaching in the elementary school and desires some additional experience.

G427 Student Teaching with the Educable Mentally Retarded. (3).
Orientation, observation, teaching with mentally retarded pupils.
PREREQUISITE: Education 415 or 425.

G428 Student Teaching with Pupils who have Crippling and Special Health Conditions. (3).
Orientation, observation, teaching with pupils who have crippling and special health conditions.
PREREQUISITE: Education 415 or 425.

G429 Workshop for Teachers in the Elementary School. (6).
A course designed to meet the needs of in-service teachers by offering an opportunity to work cooperatively on problems which are real to teaching situations and which meet the needs of the individual.
PREREQUISITE: teaching experience and consent of the director of the workshop.

G431 Workshop in the Improvement of Instruction. (3).
This course is designed primarily to assist in-service and prospective teachers of grades one through twelve to improve the instruction-learning program. Attention is given to common elements of basic methodology such as purposes of education, classroom learning, motivation of learning, the utilization of appropriate materials and resources, evaluation of teaching and learning, etc. Attention is also given to ways and means of applying these elements of methodology in the several instructional areas of the elementary school and in the particular subject areas of the secondary school.

G432 Workshop in the Administration of Guidance Services. (3).
This course is designed primarily to assist in-service and prospective teachers and administrators in providing more effective guidance services in grades one through twelve. Services to be considered may be grouped as follows: inventory, information, counseling, placement, and follow-up. Particular attention will be given to planning, organizing, and evaluating these services. Where the workshop is designed to deal with only one of the guidance service areas, designations listed below will be used to indicate the service or area of guidance to be considered. Workshops designated G432A through G432F are open to *graduate students only*.

A—Philosophy and Principles of Guidance (taken in lieu of Educ. G471).
B—Diagnostic and Individual Inventory Techniques (taken in lieu of Educ. 527).
C—The Informational Service (taken in lieu of Educ. 528).
D—Counseling Techniques (taken in lieu of Educ. 526).

E—Group Dynamics as applied to Guidance (taken in lieu of Educ. 529).

F—Research Methodology as applied to Guidance (taken in lieu of Educ. 536).

G435 Aerospace Education in Schools. (3).

The purpose of this course is to provide teachers with aerospace knowledge and experiences and ways of utilizing this knowledge and experience in the classroom.

G439 Workshop for Teaching Perceptually Handicapped Children. (3).

A workshop for teacher-training in the area of perceptually handicapped children (brain-injured, non-retarded), who demonstrate a learning and/or behavioral disorder, due to a minor or moderate neurological impairment.

G442 The Teaching of Natural Science in the Elementary School. (3).

This is an advanced course in the study of the natural environment as a child would view it. A survey of suitable equipment and materials for the elementary classroom and limited experience at carrying on experiments at the child's level.

G443 The Teaching of Modern Mathematics in the Elementary School, (Grades 1-8). (3).

This is an advanced course acquainting prospective and experienced teachers with the mathematical process required of the elementary child and giving an insight into reasons why certain methods are used.

G444 The Teaching of the Social Studies in the Elementary School. (3).

An analysis will be made of social problems, needs, and interests which are basic to the curriculum of the elementary school child. The role of the social studies and its relationship to the total school program will be emphasized.

G445 The Teaching of Children's Literature in the Elementary School. (3).

This is a course designed to improve the methods of teaching children's literature in the elementary school. Units on story telling, dramatization, choral speech work, and the correlation of literature with the content subjects will be carried out.

G446 Improving the Teaching of Reading. (3).

Survey of reading methods and research for the person who has had experience in the classroom.

G447 Techniques of Functional Literacy. (3).

An overview of the field of functional literacy including an understanding of the sociological and psychological implications of illiteracy, a study of literacy methods, the preparation of materials for the new adult reader, and the promotion of literacy in the United States and overseas. The purpose of the course is to serve teachers and prospective teachers of adult illiterates.

G448 Workshop in the Reading Program. (3-6).

Through the media of group study, discussion, demonstrations, directed observation, and laboratory work, participants will have opportunity to formulate plans for their reading program as to content, methods and techniques, materials, and evaluative criteria.

G451 History of Education. (3).

This course traces through European history some of the more important educational problems of modern times as they have been affected by the

social and political facts of history, by the contributions of some of the leading educational theorists, and by institutional practices.

G452 History of Education in the United States. (3).

This course aims to trace, describe, and evaluate, in the light of accepted facts, the development and growth of our educational practice, institutions, and theories from the beginning of colonial life to the present time.

G453 Philosophy of Education. (3).

The purpose of this course is to furnish a guide to the philosophical treatment of, and to develop in the student some facility in critical and systematic thinking about, educational problems.

G456 Educational Sociology. (3).

Group behavior in the educational process; sociological factors involved in the interaction of pupils, teachers, administrators, and community.

G461 Curriculum Problems and Trends in the Secondary School. (3).

This course is designed to afford some help in the clarification of secondary school educational purposes and in determination of appropriate learning activities. It deals with the functional teaching objectives, ways of attaining these objectives, methods of establishing relationships among the school subjects, developing the core curriculum, and the organization and use of units of work.

G462 Curriculum Problems and Trends in the Elementary School. (3).

This course deals with general educational objectives and means of achieving them; the role of the various school subjects and their relationships, and with the organization and use of units of work in the core curriculum.

G466 Audio-Visual Aids to Teaching. (3).

Audio-visual materials will be examined from the point of view of their effectiveness and possible utilization in the school program. Opportunity will be provided to develop skills in the use of materials and equipment. The technical and administrative problems of integrating audio-visuals into the school curriculum will be studied.

G471 Procedures, Administration, and Organization of Guidance Services in Schools. (3).

Historical background and growth of the guidance movement; sociological, psychological, and educational foundations; functions, scope, organization and administration of guidance services; duties and responsibilities of administrators, teachers, and specialists in guidance programs.

G472 The Psychology of Adolescence. (3).

A study of the characteristics of the adolescent stage of development that should be taken into account in the planning and teaching of secondary school courses of study, in the supervision of extra-class activities in the secondary school, and in guiding and counseling with adolescents.

G476 Mental Hygiene and the School. (3).

Guidance for the teacher in working on her own personality development and a study of the mental hygiene of the child as affected by his total environment, past and present.

G478 Supervised Clinical Training in Educational Therapy. (6).

Practical application in the rehabilitation of patients with neuropsychiatric, orthopedic, neurological, cardiac, pulmonary and other general medical and surgical disabilities employing educational type activities, as the modality

for their treatment, including such procedures as Braille, Speech Therapy, General Educational Development, Literacy Training, and other vocational subjects.

G479 Supervised Practicum in School Guidance and Counseling. (1-3). Supervised application of the principles and methods of guidance derived from professional preparation for school counselors: standardized tests, records and personal data, educational and occupational information, personal and group counseling and interview techniques. Minimum: 45-135 clock hours. Prerequisite: Consent of instructor.

G480 Education of Exceptional Children. (3). A survey course which deals with the general problems involved in education of exceptional children.

G481 Education of the Mentally Retarded Child. (3). This course is designed to aid students in understanding the mentally retarded child. Includes basic educational techniques and methods applicable to mentally retarded children.

G482 Education of the Brain-Injured and Cerebral Palsied Child. (3). The content of this course consists of a study of (1) the neurological mechanisms, (2) the types of aphasia and their possible educational implications and adjustments, (3) the types of cerebral palsy and their educational implications and remedies by use of special methods and materials, and (4) the study of various other physiological impairments (such as encephalitis) frequently encountered by teachers of special education, with an investigation as to the most satisfactory educational approach to the rectification of these conditions.

G483 Education of Hospitalized and Homebound Children. (3). This is an orientation to the general and specific problems of the hospitalized and homebound child.

G484 Educational and Medical Aspects of Crippling and Special Health Conditions. (3). This course consists of a detailed study of the various types of physically disabling conditions (poliomyelitis, cleft palate, arthritis, measles, and other commonly injurious conditions) which cause either temporary or permanent decreases in educational proficiency. Special methods of instruction for these health conditions would be studied along with suitable adaptations of materials for such afflicted children within the framework of the public school organization.

G485 Introduction to Social Case Work. (3). This is an introductory course designed to acquaint the student with the concepts and principles underlying social case work.

G487 Methods and Materials for Teaching Visually-Handicapped Children. (3). A course primarily designed for teachers of the partially-seeing and blind within the framework of public schools, consisting of study in the growth and development of visual imbalance, and the environment and educational implications of visual problems; the historical background of special programs in the education of the visually-handicapped, and the adaptations of educational methods and materials to the teaching of such handicapped children.

G488 Introduction to the Teaching of Braille. (3). A course designed to give the basic fundamentals in Braille instruction, including the introduction of equipment for Braille writing, development of

skill in the use of such equipment, the history and development of Braille and other instructional procedures for the blind, and mastery of the Nemeth Code of Mathematics, three-dimensional bulletin boards and equipment, and practicum in the use of these materials.

G491 Materials and Methods of Teaching High School —. (3).
An advanced course in a specified endorsement area, partly taught by means of televised instruction.

G492 Materials and Methods of Teaching High School —. (3).
A workshop in teaching methods in a specified endorsement area.

501 Educational Thought. (3).
This is a study of the evolution of educational theories and philosophies with particular reference to their impact upon educational developments in the United States.

504 Social Foundations of Education. (3).
This course is designed to study education as a cultural universal. It emphasizes the mutual influence of social institutions and education as well as the factors involved in the socialization of the student personality.

506 Comparative Education. (3).
This course is designed to offer a scientific study of education in various cultures by exploring the relationships that exist between a given educational system and the philosophy, history, geography, and technology of the people. This course is planned to give background and meaning to the content and method in the area of the social studies with special emphasis on international understanding.

521 Educational Psychology. (3).
This is an advanced course in the psychology of teaching and learning designed especially for experienced teachers and administrators who desire to pursue graduate study in the field of education.

526 Techniques of Counseling. (3).
This course includes a consideration of different schools of thought in counseling; how the school counselor works. Effective procedures for interviewing and counseling students including implications for school social work.

527 Diagnostic Techniques in Guidance. (3).
Analysis and use of the diagnostic techniques basic to school guidance and counseling. How to select, use, and interpret devices for gathering data about students; how to assemble and interpret data from cumulative records and case histories.

528 Educational and Occupational Information. (3).
This course is concerned with needs, trends, training facilities, and vocational opportunities. Emphasis will be placed on gathering, interpreting, and using all types of educational, social, occupational, and community information in the guidance program.

529 The Group Process as Applied to Guidance. (3).
This course is a study of the group process as applied to the role of teachers and counselors in Guidance. It includes homeroom and group guidance procedures, and the counselor's function in working effectively with students, administrators, and teachers in the school.

536 Educational Statistics and Research Methodology. (3).
This course is a study of the more important techniques used in educational

research, of procedures in the analysis and the interpretation of data, and develops ability in training elementary educational statistical calculations.

541 Diagnostic and Remedial Reading in Elementary and Secondary Schools. (3).

An analysis of why certain children fail to read adequately. The development of a program in reading that will tend to correct reading deficiencies. (Prerequisites: Education 385, or 446 or G446, and concurrent teaching or a minimum of one year's classroom experience.

553 Educational Tests and Measurements. (3).

A study of the principles underlying the construction of objective tests, and of the problems relating to the use and interpretation of school measurements by teachers and administrators. Practice is given in the construction of new type and essay tests, and in the elements of statistical procedure necessary for the interpretation of school measurements.

557 Modern Methods in Elementary Education. (3).

A consideration of the overall task or function of elementary education and what this means to elementary school teaching. How the elementary school can perform its role most effectively.

558 Modern Methods in Secondary Education. (3).

A consideration of the overall task or function of secondary education and what this means to secondary school teaching. How the secondary school can perform its role most effectively.

561 Fundamentals of Curriculum Development. (3).

A study of the fundamental aspects of curriculum development and the basic issues underlying curriculum planning. Four significant aspects are: educational directions; ordering potential experiences; patterns of curriculum organization; and the determination of principles and procedures by which changes in the curriculum can be made, evaluated and sustained.

562 Research in Curriculum and Instructional Problems. (3).

This course is designed to offer students an opportunity to gain experience in surveying and evaluating research findings in current curriculum issues, and planning for action research. Problem census and student needs will determine the specific areas approached.

565 The Modern Junior High School. (3).

Origin and functions of the junior-high-school; prevailing nationwide practices in its educational program; and a description of suggested improved programs and procedures not yet common to the typical school.

566 The Pupil Activity Program. (3).

A study of current philosophy and practice in regard to responsibilities of teachers, supervisors, and administrators for those phases of educational practice which are essential for the educational program, but are not considered as part of general classroom procedure.

591 (—) Special Problems.

Individual investigation and report under the guidance of a faculty member. Register for areas as follows:

- (A) Curriculum (1 to 3).
- (B) Instruction (1 to 3).
- (C) Guidance (1 to 3).

593-6 Thesis (3 or 6).

Only students with superior scholarship are permitted to register in this course. The student must present in writing an outline describing the proposed thesis. This outline, when approved by the faculty members under whose direction the thesis is to be written, must be submitted to the Chairman of the Department of Curriculum and Instruction for his approval. This course will involve writing the thesis and will emphasize the adequate setup of the problem, the collection of the data, their use, and conclusions to be reached.

Application for writing a thesis must be filled out on an approved form after consultation with the major professor and filed with the Dean of the Graduate School at the time of registration.

Educational Administration and Supervision

MR. CRADER, *Chairman*, MR. HAYNES, MR. STREET

G411 School and Community Relationships. (3).

The relationship of the school to the community movements and organizations concerned with health and safety, government and civic life, religion, occupations, extension services, children's organizations and clubs, adult education, cultural education, community cooperative movements, etc.; relationships of the community to such school activities as attendance, athletics, lunch, libraries, extracurricular program, home study, records and reports, guidance, etc.

G486 Elementary School Administration. (3).

A study of the major aims of the elementary school; planning the daily program through the integration of related subjects; learning to keep and interpret various types of records and reports. Considering the importance of proper teacher-parent relationships. Special emphasis on the P. T. A. program in Tennessee.

537 Techniques of Educational Research. (3).

A study of techniques used in the solution of educational problems with the objectives of (1) appreciation and critical evaluation of the work of others, and (2) the ability to use one or more techniques. Particular attention will be given to techniques of problem solving by group process.

571 City and County School Supervision. (3).

A course designed to consider the general supervisory functions and techniques in school systems. The purpose of the course is to help the administrator and supervisor evaluate present programs and practices and from the evaluations plan in-service-training experiences which lead to improved instruction.

572 High School Supervision. (3).

This course is designed to investigate some of the modern theories, principles and practices of school supervision as they apply to the practical problems of supervision at the secondary school level. Qualifications, selection and performance of supervisors are considered, along with the functional demands on modern secondary schools.

573 Elementary School Supervision. (3).

This course deals with significant supervisory problems at the elementary school level. Recent research findings will be used to focus on the problems as they are dealt with through democratic elementary school supervision.

581 Public School Organization and Administration. (3).
The following will be studied: the administrator and his leadership; his relation to all agents and agencies of the school; types of school organization, administrative and instructional supervision; classification and promotion of pupils; curriculum activities and materials; public relations; office administration, plant operation, assemblies, extra-instructional activities; special classes, library, and health program.

582 School Finance and Business Management. (3).
The theory and practice of financing public education in the United States. Developing of guiding principles in educational finance, trends and needs in state and federal participation in school support, and local operational finance.

583 School Housing and Transportation. (3).
A consideration of the school plant, grounds, and major equipment in relation to the educational needs of the community; utilization and accessibility of schools and transportation.

584 High School Administration. (3).
This course is offered as a concise description of modern useful practices in organizing and administering secondary schools, types of high schools, selection and assignment of staff, program of studies, records, management of buildings and grounds, pupil personnel guidance, selection, retention and improvement of teachers, and interpreting the school to the public.

585 Administration of School Personnel. (3).
This course is designed to deal with the various aspects of school personnel management. Qualification, selection, pay schedules, and general personnel policies dealing with retirement, sick leave, insurance and other such problems will be considered. Attention will be given to the efficient use of administrative, instructional and noninstructional personnel.

586 Internship in School Administration. (3 or 6).
This course is designed to provide practical experience to students of school administration. The student will have opportunity to observe and participate as an administrative intern in selected school systems. The areas of observation and participation will include administration, supervision, school-community relationship, finance, and plant and transportation at secondary and/or elementary levels. Prospective enrollees should give thirty days notice of intention and secure approval of the chairman of the department.

587 Contemporary Issues in Educational Leadership. (3).
Seminar on contemporary issues confronting leaders in American education currently before the profession and the public. The role of the administrator in resolving contemporary issues.

588 School Law. (3).
This course is designed to consider the Federal and State statutes and local regulations which are applicable to the field of education. Emphasis is placed on legal requirements and their implications for public school operation. Court decisions relating to public schools are considered. The course is for administrators and students of administrative procedures.

589 Human Relations in School Administration. (3).
The course will emphasize human relations in successful educational leadership positions. Human relations principles will be applied to the various responsibilities of school leaders, and research findings in this field will be interpreted for successful practices in school administration. Investigation of

the practices and concepts of school leadership will be designed to help the student develop a personal philosophy which will be of practical benefit in his position.

591 (—) Special Problems.

Individual investigations and report of specific problems. Register for areas as follows:

- (D) School and Community Relationships (1 to 3).
- (E) School Supervision (1 to 3).
- (F) School Plant and Transportation (1 to 3).
- (G) School Finance and Business Management (1 to 3).
- (H) School Law (1 to 3)

593-6 Thesis. (3-6).

Only students with superior scholarship are permitted to register in this course. The student must present in writing an outline describing the proposed thesis. This outline, when approved by the faculty members under whose direction the thesis is to be written, must be submitted to the Chairman of the Department of Educational Administration and Supervision for his approval. This course will involve writing the thesis and will emphasize the adequate setup of the problem, the collection of the data, their use, and conclusions to be reached.

Application for writing a thesis must be filled out on an approved form after consultation with the major professor and filed with the Dean of the Graduate School at the time of registration.

599 Seminar in Educational Leadership. (1-6).

This course is designed primarily for persons in positions of educational leadership. It will deal with problems and issues deriving from movements and trends in our present day culture. Emphasis will be given to educational leadership arising therefrom.

Engineering

Course descriptions will be available upon request with Schedule of Classes. The faculty list will be available at the same time.

English

Mr. SUGG, *Chairman*, Mr. BANNON, Mr. CARSON, Mrs. CHILDERS, Mr. DAMERON, Mr. EVANS, Mr. FARRIOR, Mr. HOWELL, Mr. JAMES, Mr. OSBORNE, Mrs. PHILLIPS, Mr. RILEY, Mr. A. SMITH, Mr. W. SMITH, Mr. STAGG, Mr. WOOLF, Mr. WYNN

G400 The Principles of Literary Criticism. (3).

A study, including work with poetry and prose, of the principles underlying the analysis and evaluation of literature from antiquity to the present.

G401 Old English Grammar and Readings. (3).

Emphasis is chiefly upon Old English grammar, but time is devoted to selections from the literature of the period.

G402 Beowulf. (3).

A continuation of English G401, with both literary and linguistic emphasis.

G411 Early English Drama. (3).

British drama is traced from its beginning to the closing of the theaters in 1642, exclusive of Shakespeare.

G412 English Drama Since 1642. (3).

The course of British drama is further traced, beginning with the Restoration and continuing to the present era.

G413 Studies in American Drama. (3).

A course in the development of the American drama as a literary form and its relation to currents in American thought.

G420 Spenser. (3).

The Faerie Queene and other major poems are studied in the context of the historical, intellectual, and literary developments of the English Renaissance.

G421 Chaucer. (3).

As many of *The Canterbury Tales* as possible are read and discussed in class.

G422 Milton. (3).

The poetry of Milton is emphasized in this course, with some attention given to his essays. Papers and reports are assigned.

G423 Tennyson and Browning. (3).

An intensive study of selected poems of different types produced by each poet. Their philosophy and religion are considered, as well as their connection with forerunners and successors.

G424 Coleridge and Wordsworth. (3).

The poetry and prose of Coleridge and Wordsworth with special attention to *THE PRELUDE*.

G432 Shakespeare's Tragedies. (3).

All of Shakespeare's tragedies are read, and critical examination is made of them. Attention is given to the principles governing tragedy.

G433 Shakespeare's Comedies and Histories. (3).

The best known of Shakespeare's comedies are included in this course. In addition several of his histories are studied.

G441 The English Language. (3).

The historical development of the English language, involving its phonology, etymology, morphology, and syntactical structure.

G442 English Grammar. (3).

The historical development of English grammatical principles and their application to the description of current English usage.

G443 Semantics. (3).

Meaning and change of meaning in the use of English words.

G451 The English Novel. (3).

A critical appreciation of representative novels. Class discussion of their literary and historical merit and of the reflection of their authors' responses to the personal, social, and ethical problems of their time. From the Age of Elizabeth to the nineteenth century.

G452 The English Novel. (3).

A continuation of G451.

G461 American Authors. (3).

An analysis of the work of three nineteenth century writers of fiction with special attention to their themes and artistic forms.

G462 American Authors. (3).

An appreciation of selected American poets and essayists, with emphasis upon their place in the development of ideas and art forms.

G463 American Authors. (3).

A study of the shorter works and critical theories of Mark Twain, W. D. Howells, and Henry James, with consideration of their relation to the culture of their period.

G464 American Authors. (3).

A study of the work and critical appreciation of Emily Dickinson, E. A. Robinson, Robert Frost, and Carl Sandburg.

G470 The South in Literature. (3).

A study of the culture and literary traditions of the South. Considerable independent reading will be required.

G471 American Folklore and Humor. (3).

Wide reading in and analytical study of the major types of folklore in America, including Indian, Negro, transplanted British, and native American materials which formed part of the oral tradition in American humor, culminating in the works of Mark Twain.

G490 British and Continental Backgrounds of English Literature. (6).

This course is offered through European travel and study only, and students are admitted by special permission of the teacher and conductor.

500 Bibliography and Methods of Research. (3).

Examination of major bibliographical aids for the study of English and American literature, consideration of particular problems involved in various types of research, and study of the principles of presentation and documentation of scholarly writing.

501 Studies in English Vocabulary. (3).

Investigation of patterns of change in vocabulary and meaning.

531 Studies in Drama—Ancient. (3).

A course in Greek and Roman drama. It is expected to treat Aeschylus, Sophocles, and Euripides; Aristophanes; Plautus, Terence, and Seneca.

532 Studies in Drama—Medieval and Modern. (3).

A course in selected periods of drama, such as Spanish Renaissance, French Neo-Classical, and German Romantic drama; and contemporary drama in Europe and America.

533 Studies in Non-Dramatic Literature—Ancient. (3).

A course in Greek and Roman prose and poetry, with especial regard to their influence on English and American literature. Included are the works of Homer, Plato, Aristotle, Theocritus, Virgil, Horace, Ovid, and Petronius.

534 Studies in Non-Dramatic Literature—Medieval and Renaissance. (3).

A course in certain great writings of the period before 1600. The *Song of Roland*, the *Niebelungenlied*, and works of Dante, Petrarch, Boccaccio, Rabelais and Montaigne are included in the course.

535 Studies in Modern European Fiction. (3).

Studies of the major works of selected European novelists from 1850 to the present.

542 Studies in the Eighteenth Century Novel. (3).
Intensive analysis of the literary skill and significance of two major novelists, such as Fielding and Sterne, or Richardson and Smollett.

543 Restoration and Eighteenth-Century Poetry. (3).
Mainly the poetry of Dryden and Pope with emphasis upon scientific, philosophical, and aesthetic backgrounds.

551 Milton and His Age. (3).
A survey of the historical background of Milton, including the political, social, and intellectual aspects of Seventeenth Century England. Investigative problems are assigned, culminating in oral and written reports. Emphasis is placed on the prose works.

552 Milton and His Age. (3).
A continuation of 551, with emphasis upon the major poems.

561 American Literature Before 1860. (3).
A study of representative authors important to the development of literary culture in America before 1860.

562 American Literature Since 1860. (3).
A study of the major developments in American thought as revealed in selected authors since 1860.

571 Studies in the Literature of the Romantic Period. (3).
An intensive study of major writers of the Romantic movement in England (1798-1832) and their relationship to the political, intellectual, and aesthetic currents of the era.

572 Studies in Victorian Literature. (3).
An intensive study of major writers of the Victorian period, designed to examine closely the form and content of representative literary works and to relate them to the intellectual currents of their era.

580 Seminar on Poe. (3).
Study of the canon of Poe's writings with emphasis on Poe scholarship and criticism.

581 Seminar on Whitman. (3).
Study of the Whitman canon, biography, and place in American letters.

593-6 Thesis. (3 or 6).
This course is designed for students electing to write theses in the Department of English. All theses are to be written under the supervision of a committee consisting of the departmental chairman and the student's advisor. A written statement of the thesis subject, the proposed scope, and source of material must be submitted to and approved by this committee before the writing of the thesis is undertaken. The completed thesis must be approved by this committee before it is submitted to the dean of the Graduate School for final approval.
Application for writing a thesis must be filled out on an approved form after consultation with the major professor and filed with the Director at the time of registration.

Geography

MR. SISCO, *Chairman*, MR. JOHNSON, MR. MATTHEWS, MR. SOBOL

***G411 Earth Science I. The Earth. (3).**

An analytical study of land forms, their changes and their uses to man.

***G412 Earth Science II. The Atmosphere. (3).**

An analytical study of climatic factors, climatic regions, and climatic effects on man.

***G413 Earth Science III. The Soil. (3).**

An analytical study of soils to include their physical, chemical, and biological qualities, and their classes, uses, and measures of conservation.

***G414 Earth Science IV. The Oceans. (3).**

An analytical study of the oceans to include their physical, chemical, and biological qualities; their movements, resources, climatic influences, and their importance for transportation.

G421 Geography and World Power. (3).

The potential strength of the United States as a world power based on the culture and economy of the people, and the natural resources of the country.

G431 Western Europe. (3).

Lands west of the Iron Curtain.

G432 The Soviet Realm. (3).

Soviet Union and its satellites.

G433 Asia. (3).

Lands south of the Soviet Realm.

G436 The South. (3).

Specially selected regions in the South.

G437 Tennessee. (3 or 4).

A comparison of the human-use, political, and physical regions of the state.

G441 (—) Field Courses in Geography.

(A) Local Field Study (3).

This course includes (1) a brief study of field planning and techniques, and (2) an application of these phenomena in reconnaissance field work and in the detailed mapping of physical and cultural features. Three half-day trips are required.

PREREQUISITE: consent of instructor.

(B) Regional Field Study (6).

A comparative study of selected regions of the world requiring the minimum of half a semester's work. The course is divided into three parts. The first is devoted to a library study of the regions to be traversed; the second requires a minimum of 16 days of study in the regions; and the third includes oral and written reports on parts one and two.

PREREQUISITE: consent of instructor.

*Geography 411, 412, 413, and 414 are designed to be of interest and value to students in the physical sciences as well as those in the social sciences; assignments include lectures, laboratory work, and field trips.

G455 Workshop in Conservation. (3 or 6).

A course for students interested in resource problems in Tennessee, in remedial measures applied to specific resource abuses in local communities, and in increasing inspiration and enthusiasm through association with trained resource workers.

G461 Urban Land Uses. (3). (Formerly Geography 553).

A study of the allocation of land for urban uses; the adjustments and adaptations to existing physical phenomena; the patterns, functions, and forms of specific urban land areas; and some of the continuous problems of urban development and growth.

G462 City Planning. (3).

The fundamental principles of urban planning, basic elements of a city plan, and the necessity of continuity in planning administration.

G463 Urban Renewal. (3).

Changing urban land uses, first in areas which must improve or rebuild obsolete patterns, functions, and forms; and second in areas with acceptable uses, structures, and institutions which in the interest and welfare of all the people must have additional space for growth and expansion.

G464 Residential Housing. (3). (Formerly Geography 451).

A study of residential housing primarily in urban areas, sub-division development, and the major phases of home building and financing.

521 Economic Geography: Agricultural. (3).

A survey of agricultural products and agricultural regions of the world, and the role of agriculture in world economy.

522 Economics Geography: Industrial and Commercial. (3).

A global survey of the extractive industries, of the manufacturing regions, and of the major trade areas and trade routes.

524 Population Geography. (3).

A survey of the density, distribution, migrations, trends, and settlement patterns of world population.

525 Political Geography. (3).

The content and philosophy of political geography as illustrated by a broad survey of major writers in the field followed by student analysis of individual nation-states.

531 Seminar in Regional Geography. (3).**541 Maps, Charts, Graphs. (3).**

A study of the ways by which data are presented and interpreted through maps, charts, graphs, and tables.

551 Conservation of Natural Resources. (3).

A survey of the current problems and responsibilities relating to the conservation of our natural resources on the local, state, and national level.

565 Transportational Lands. (3).

Planning and allocation of urban land used for water, rail, street, and air transportation.

566 Commercial Lands. (3).

Planning, analysis, and allocation of urban land used for commercial purposes; particularly, the Central Business District, commercial strips along arterial streets, and the new outlying shopping centers.

571 Geographic Tools and Techniques. (3).

An analytical study of the tools and techniques for effective instruction at different levels.

590 Development of Geographic Thought. (3).

A course vital in acquainting the serious minded geography student with the various types and sources of geographic literature, its nature and content, and the growth and development of geographic thought.

591 (—) Problems in Geography.

(A) Field of Regional Geography (3).

(B) Non-regional Fields of Geography (3).

These courses are designed primarily for students who are able to do independent work, and who are not enrolled in school on the campus.

PREREQUISITE: Approval of supervising teacher and departmental chairman.

593-6 Thesis. (3 or 6).

A student registering for this course must have demonstrated, to two or more members of the geography staff, superior ability in the field of geographic content and in the organization and presentation of subject matter.

Application for writing a thesis must be filled out on an approved form after consultation with the major professor and filed with the Dean of the Graduate School at the time of registration.

PREREQUISITE: Approval of supervising teacher and departmental head.

Health and Physical Education

MR. HATLEY, *Chairman*, MR. COLSTON, MR. LAMBERT, MR. SCOTT

G416 Observation in Community Agencies. (3).

This course is planned to introduce the student to a wide variety of community health and welfare agencies. Opportunity to visit in official and volunteer agencies is provided. Purpose, objectives, functions and programs are presented by representatives in each agency. Application for the course should be made at least 60 days before the student desires to enroll in the course. PREREQUISITE: Permission of Chairman of Department.

G417 Field Practice in Community Agencies. (3).

This course offers an opportunity for the student to observe and practice under supervision all phases of public health activities in which he would be expected to participate in professional life. Experience is planned to meet the needs of the individual student. Enrollment is limited to students who meet certain departmental requirements. Application for the course should be made at least 60 days before the student desires to enroll in the course. PREREQUISITE: Permission of Chairman of Department.

G426 Recreational Leadership. (3).

Development of skills and techniques necessary for successful leadership in city, community and school recreation programs.

G444 Clinical Practice. (6).

Supervised clinical practice in the Department of Physical Medicine and Rehabilitation Service at the Kennedy V. A. Hospital. Instruction will be given in the conditioning, ambulation and self-care of patients with neurological, pulmonary, geriatric, neuropsychiatric, speech, blind, spinal cord injuries, cardiac, and other types of disabilities.

G450 Supervision and Administration in Health Agencies. (3).

A study of the basic functions, principles and procedures of supervision and administration as applied to health agencies. Emphasis is placed on the relationship and responsibilities of personnel in planning, promoting, improving and evaluating the total health activities in the family-centered health services. Legal and legislative aspects of health activities are included.

G470 Trends and Problems in Public Health. (3).

A review of the historical development and current trends in professional nursing as a community service; the various needs and demands for medical care; the contribution of the professional personnel in providing for total health services and education.

G480 Health Statistics. (3).

A study of the statistical method including collection, analysis and presentation of numerical data pertaining to health problems.

G482 Organization and Administration of Health and Physical Education. (3).

A study of administrative problems of health and physical education, including curriculum, facilities, buying and caring for equipment, general class organization, and organization of an intramural program.

501 Foundations of Physical Education. (3).

The interpretation of the objectives of physical education as related to scientific facts contained within the biological, psychological, and sociological fields of study.

502 Introduction to Research in Health and Physical Education. (3).

A study is made of the various methods and techniques of research. A potential problem is selected, analyzed and written according to research standards.

503 Foundations of a philosophy for American Recreation. (3).

Deals with the development of a recreation philosophy for America. Studies the social and economic factors that have influenced leisure and concepts of recreation.

510 Measurement and Evaluation in Health and Physical Education. (3).

This course includes selection, application and evaluation of certain tests appropriate to these areas.

526 Organization and Administration of Group Recreation. (3).

A study of the development of the recreational movement. Principles and practices in the administration of a wholesome leisure-time program and the place of the school and its personnel in community recreational life.

533 The Administration of Athletics. (3).

For athletic directors, supervisors, athletic coaches and principals. A study of representative athletic administrative procedures for colleges, public school systems, and municipal athletic leagues. Fiscal procedures and business management are stressed.

551 Health Education in Organic and Functional Diseases. (3).

The cause, the prevention and the public health aspect of control of certain organic and degenerative diseases are studied. Stress is placed on educational methods of overcoming public attitudes of fear, superstition, apathy and misconceptions surrounding such conditions as diabetes, heart disease, cancer, mental illness and geriatrics.

552 Community Health Education. (3).

Attitudes of fellowship between professional health workers and non-professional citizens in their effort to promote optimum health are developed. Consideration is given to processes and techniques utilized to awaken awareness in individuals and groups to health problems and to stimulate positive action for the solution of these problems through the use of mass media and group dynamics. Health propaganda materials are collected, analyzed and interpreted.

553 Health guidance and counseling. (3).

A study is made of the role and the techniques of the guidance counselor employed to assist individuals to recognize direct personal health problems which arise from physical, emotional and social causes; and to use effectively scientific health facilities in the solution of these problems. Procedures for establishing and using confidential records and referral to professional guidance and rehabilitation agencies are investigated.

554 Environmental and occupational Health Education. (3).

An introduction to the nature of environmental and occupational health activities, the proper relationship in development of health activities of mutual interest to private enterprise and health educational agencies is given. Programs for the prevention of accidents, improving sanitary conditions, and reduction of occupational diseases are considered in relation to the effect on well-being of the worker and the general public at home, at work, or in the community.

562 Curriculum Construction in Health Education and Physical Education. (3).

Consideration is given to the entire program of instruction in health education and physical education in the public schools; methods of instruction, standards of achievement, evaluation of results, and the preparation of courses of study.

570 Supervision of Health and Physical Education. (3).

The purpose of this course is to present and discuss the duties and problems of the supervisor of health and physical education in the school and community.

571 Development and Supervision of an Elementary School Health and Physical Education Program. (3).

Consideration is given to the entire program of instruction in health education and physical education in the elementary schools; methods of instruction, standards of achievement, organization and supervision of the program. (Intended for elementary school teachers as well as principals and supervisors).

591 Special Problems.

This course is designed to afford opportunity for prospective on in-service school and professional personnel to work individually or in groups in carrying out a research project. Register for areas as follows:

- (A) Athletic Coaching (1-3).
- (B) Health Education (1-3).
- (C) Physical Education (1-3).

593-6 Thesis. (3 or 6).

Application for writing a thesis must be filled out on an approved form after consultation with the major professor and filed with the Dean of the Graduate School.

History

MR. MITCHELL, *Chairman*, MR. BOOM, MR. ELLIS, MR. GILLASPIE, MR. LEON,
MR. ORR, MR. WHITE.

G402 History of Russia. (3).

A survey of Russian history from early times to the present.

G411 The Era of the French Revolution. (3).

A study of the Enlightenment, the French Revolution, and the Napoleonic era.

G412 Europe in the Nineteenth Century. (3).

A study of Europe during the period 1815-1914.

G413 Europe in the Twentieth Century. (3).

The study of Europe since the outbreak of World War I.

G421 Colonial America, 1607-1763. (3).

A study of English America before 1763. Considerable attention is also given to Spanish, French, and Dutch colonization.

G422 Revolutionary Era, 1763-1790. (3).

A study of the forces that brought on the American Revolution, the Revolution, and the founding of the Federal Union.

G423 Early National Period, 1790-1850. (3).

A study of American history from unification until the beginnings of division.

G424 Civil War, 1850-1865. (3).

A study of division and conflict.

G425 Emergence of Modern America, 1865-1914. (3).

A study of the United States from the end of the Civil War to the outbreak of World War I.

G426 Recent American History, 1914—present. (3).

A study of the United States from World War I to the present.

G451 The Medieval World. (3).

A study of the history of institutional forms beginning with the decline of the Roman Empire and ending with the beginnings of Renaissance life.

G452 The Renaissance World. (3).

A study of the achievements and forces, political and economic, social and cultural, creative and intellectual, which made up this fascinating foundation of modern European civilization.

G471 History of Mexico. (3).

A survey of Mexico, from independence to the present.

G472 History of Brazil. (3).

A survey of Brazil, from independence to the present.

G481 Intellectual and Social History of Europe, I. (3).

Especially designed to appeal to history majors, this course considers intellectual history from the 12th century Renaissance through the period of the Thirty Years' War.

G482 Intellectual and Social History of Europe, II. (3).

Especially designed to appeal to history majors, this course considers intellectual history in the Enlightenment, the Romantic Era, and the Liberal Tradition.

500 Introduction to Historical Research and Writing. (3).
A study of the mechanical techniques of historical composition, the nature and use of various kinds of historical source materials, bibliographical aids, and methods of historical synthesis. Required of all history majors.

511 Studies in Ancient History. (3).
Conference and reports, three hours a week.

512 Studies in European Diplomacy, 1848-1919. (3).
Conference and reports, three hours a week.

513 Studies in European Diplomacy, 1919-1939. (3).
Conference and reports, three hours a week.

514 Studies in the Soviet Union and World Communism. (3).
Conference and reports, three hours a week.

515 Studies in British History Since 1485. (3).
Conference and reports, three hours a week.

521 Studies in Early American History (to 1800). (3).
Conference and reports, three hours a week.

522 Studies in the Middle Period of American History (1800-1877). (3).
Conference and reports, three hours a week.

523 Studies in Recent American History (1877—present). (3).
Conference and reports, three hours a week.

524 Studies in Southern History. (3).
Conference and reports, three hours a week.

525 Studies in Western History. (3).
Conference and reports, three hours a week.

526 Studies in Social and Intellectual History of the United States. (3).
Conference and reports, three hours a week.

527 Studies in State and Local History. (3).
Conference and reports, three hours a week.

596 Thesis. (6).
The student must write and defend satisfactorily a thesis on a subject approved by his major professor.

Industrial Arts

MR. COLTHARP, *Chairman*, MR. OGLE, MR. SIMMONS

G447 Production Control. (3). (Also offered as Management and Finance G447).
A study of the elements of production and their coordination. PREREQUISITE: Industrial Arts major or minor.

G448 Plant Layout. (3). (Also offered as Management and Finance G448).
A study of industrial and educational plants, with emphasis on floor plans and placement of facilities. PREREQUISITE: Industrial Arts major or minor.

G449 Time and Motion Analysis. (3). (Also offered as Management and Finance G449). PREREQUISITE: Industrial Arts G447.
A study of work simplification techniques, including analysis of jobs and trades. PREREQUISITE: Industrial Arts major or minor.

Journalism

MR. WILLIAMS, Chairman

G421 Journalism in the Secondary Schools. (3).

Intended primarily for those who expect to teach journalism in high school or to supervise high school publications. Financial problems, manner of directing high school courses and publications, and their relation to educational objectives will be discussed.

G440 Literature of Journalism. (3).

A bibliographical approach to the overall field of mass communication, consisting of critical reading of selective works. Admission to course by approval of department only.

G450 Public Relations. (3).

The development, scope, and modern role of public relations, with emphasis on case studies, lectures, and experimentation with major public relations tools and practices.

Library Service

MR. RUMBLE, Chairman, MRS. ALGEE

G411 Organization of Materials. (3).

Includes instruction and practice in simplified procedures for acquisition, preparation, organization and circulation of books and related library materials, such as pamphlets, periodicals and audio-visual aids.

G412 Cataloging and Classification. (3).

Introduction to principles underlying the classification of books and simplified techniques of cataloging books and other materials. The abridged Dewey Decimal Classification scheme is used and the use of printed cards is stressed.

G421 School Library Administration. (3).

The library is treated as a service agency in this course. Emphasis is given to the place of the library in the instructional and guidance program of the school and to the philosophy and purposes of libraries and librarianship. Included are such problems as standards and evaluation, public relations and publicity, support, housing and equipment, training of assistants and library study hall relationships. Field trips are made to different types of libraries.

Management, Finance, and Economics

**MR. MULLINS, Chairman, MR. CARRIER, MR. E. FOX, MR. JENNINGS, MR. MARKLE,
MR. TEMPLETON, MR. ROBERTS, MR. WEST**

ECONOMICS AND FINANCE DIVISION:

G411 Development of Economic Thought (3).

An analytical and critical study of the development of economic thought.
PREREQUISITE: Basic Economics.

G412 Comparative Economic Systems. (3).

Analytical study of economic problems and the theoretical framework under different economic systems such as capitalism, socialism, communism. Emphasis on the economic problems of U.S.S.R. **PREREQUISITE:** Basic Economics.

G413 Economic Theory I. (3).

An introduction to the following concepts of price level, output, and employment: national income, neo-classical, quantity of money theory, and neo-Keynesian. PREREQUISITE: Basic Economics.

G414 Business Cycles and Forecasting. (3).

Study of the factors involved in the movements of business activity, irregular, seasonal, regular, and trend; and the application of the same for forecasting purposes in business. PREREQUISITE: Economics 361.

G451 Public Finance. (3).

Theory and practice of government expenditure and revenue; theory, practice, shifting, and incidence of the various forms of taxation; elementary consideration of the integration of revenue and expenditure into fiscal policy. PREREQUISITE: Basic Economics.

G452 State and Local Finance. (3).

Specialized treatment of state and local financial administration of revenue and expenditure, with emphasis on Tennessee. Consideration is given to trends in policy formation and integration with Federal fiscal policy. PREREQUISITE: Basic Economics.

G461 Money and Banking II. (3).

A more detailed consideration of banking and its problems since 1930. Emphasis is given to monetary and banking policy and its relationship to business and fiscal policy. PREREQUISITE: Economics 361.

G462 Investments. (3).

The principles of investment in stocks and bonds and their application to specific classes of investments. PREREQUISITE: Management 341.

G491 Government Regulation and Business Policy. (3).

A critical study of the impact of legislation and commission regulation on business policies. The effect of tax laws, Securities and Exchange Commission regulation and anti-monopoly legislation on organizational, financial and operational aspects of non-utility business enterprises. PREREQUISITE: Basic Economics.

G492 National Income Analysis and Fiscal Policy. (3).

A critical examination of the most desirable goals for fiscal policy and the programs that may be followed to attain the various goals. Emphasis on tools available and techniques involved. PREREQUISITE: Economics 413 or 461.

G493 International Economics. (3).

Historical approach to the theory of international trade. Consideration is given to the techniques of control over investment and trade, foreign exchange, balance of payments, and world interdependence. PREREQUISITE: Economics 361.

G494 Current Economic Problems. (3).

A study of current domestic and international economic problems with special emphasis on international trade, foreign investments, economic reconstruction, and world economic organization and cooperation. PREREQUISITE: Economics 361.

511 Advanced Economic Thought. (3).

Advanced study of contemporary economic thought. PREREQUISITE: Economics 411.

513 Seminar in Economics. (3).

Special study of selected current problems in this area. For the most part, individual studies will be pursued with group analysis and discussion at regular class meetings. PREREQUISITE: Consent of instructor.

561 Monetary and Fiscal Policy. (3).

The planning and implementation of various monetary and fiscal measures. Emphasis is placed on the probable impact on important segments of the economy, the changes most likely to result, and the significance of those changes to business. Included is a survey of the tools, techniques and changes in economic thinking as to their use. PREREQUISITE: Economics 461 or 492.

562 Investment Portfolio Planning. (3).

A study of the objectives of investment management with the emphasis on investments by individuals rather than by institutions. A study of risks as the principal elements involved in making investment decisions; the analysis of particular industries, companies and securities involved in the selection of portfolio securities. The emphasis is on long term investment decisions; however, considerable attention is given to the timing of purchases and sales. PREREQUISITE: Economics 462.

563 Seminar in Finance. (3).

Special study of selected current problems in this area. For the most part, individual studies will be pursued with group analysis and discussion at regular meetings. PREREQUISITE: Consent of the instructor.

591 Problems in Finance and Economics.

Directed independent research projects in an area selected by the student with the approval of the staff member supervising. PREREQUISITE: 6 hrs. of Upper Division (undergraduate) course work in the area selected.

- A. Finance (1-6)
- B. Economics (1-6)

593-6 Thesis (3-6).

Application for writing a thesis must be filled out on an approved form after consultation with the major professor and filed with the Dean of the Graduate School.

- A. Finance (3-6)
- B. Economics (3-6)

MANAGEMENT DIVISION**G421 Personnel Administration. (3).**

Employer-employee relationships; job analysis; recruitment, selection, training, transfer, promotion, and dismissal of employees; industrial unrest; wage plans and policies; employee health, interest and morale; dealing with unions. PREREQUISITE: Economics 321 or permission of instructor.

G422 Collective Bargaining. (3).

Labor-management relations from the standpoint of collective bargaining contracts. Emphasis is given to the process of negotiating agreements, including procedures, tactics and subject matter. PREREQUISITE: Economics 321.

G430 Industrial Real Estate. (3).

All phases of industrial real estate practices are covered. These include attractions to industry; financing industrial real estate; appraising industrial real estate; and selecting of industrial sites. PREREQUISITE: Mgmt. 331.

G431 Real Estate Law. (3).

This course covers law and legal instruments as applied to real estate. It is designed to serve the needs of property owners and those engaged in the real estate business. PREREQUISITES: Mgmt. 302, 331.

G432 Real Estate Finance. (3).

Examination and analysis of the sources of funds for financing all kinds of real estate transactions made, including FHA and VA types. PREREQUISITE: Mgmt. 331.

G433 Property Management. (3).

The fundamentals of management of real estate are developed. Examination and analysis of problems, duties, and responsibilities of the property manager are covered. PREREQUISITE: Mgmt. 431.

G434 Real Estate Appraisal. (3).

This course covers the fundamentals of appraising residential, commercial, and industrial real estate. PREREQUISITE: Mgmt. 432.

G435 Property and Casualty Insurance. (3).

The forms and functions of fire, marine, automobile, general liability, and other types of property and casualty insurance with emphasis on their application to commercial and industrial occupancies. A Survey of current underwriting practice. PREREQUISITE: Management 335.

G436 Life and Health Insurance. (3).

The functions of life and health insurance with emphasis upon the need for insurance and the service of life and health insurance to the American family and community. A study of the mechanics of private and public insurance and annuities. PREREQUISITE: Management 335.

G437 Insurance Agency Management. (3).

Organization, management, and operation of insurance sales agencies. Equal emphasis is given to the problems and practices of the company owned and the independent agency. PREREQUISITE: Management 335.

G441 Corporation Finance. (3).

Advanced treatment of financial management with emphasis on small and medium-sized enterprise and the forces underlying determination of policy. Financial problems are considered in connection with refunding, reorganization, mergers, and consolidations. PREREQUISITE: Management 341.

G442 Management of Business Enterprise. (3).

Consideration is given to over-all policy formation and practice in the operation of new and going business concerns. Emphasis is placed on problems of nonfinancial management in the small firm. PREREQUISITE: Management 341.

G443 Human Relations in Business. (3).

A study of the principles of human relations as applied to business management. PREREQUISITE: Management 441 or 442.

G445 Industrial Management II (3).

A course devoted to solving typical problems that arise in the planning, layout, control, operation, and administration of a manufacturing enterprise. PREREQUISITE: At least three of the 300 courses in this major or permission of the instructor.

G447 Production Control. (3).

A study of the elements of production and their coordination emphasized by visits to industrial plants. Three hours lecture.

G448 Plant Layout. (3).
Study of industrial plants—with emphasis on floor plans and placement of facilities. Three hours lecture. PREREQUISITE: Permission of instructor.

G449 Time and Motion Analysis. (3).
Work simplification, including analysis of jobs and trades, as applied in time and motion. Three hours lecture. PREREQUISITE: Management 447.

G471 Business Statistics II. (3).
Extension of the range of topics covered in Business Statistics I to include methods of correlation, analysis of variance, forecasting, and general business research. PREREQUISITE: Management 371.

G472 Statistical Quality Control. (3).
A course emphasizing the modern statistical approach to the control of industrial quality. Topics treated include the Shewart Control Chart for Variables and Attributes, Acceptance Sampling, and Introduction to the Design of Industrial Experiments. PREREQUISITES: Math. 121 or 122 and Management 371.

G481 Electronic Data Processing and Programming. (3).
This course is concerned with programming and operation of electronic data processing equipment. Machines language and programming systems will be studied in detail including FORTRAN. Introduction will be made to computer applications to business. PREREQUISITE: Management 381 or permission of instructor.

G482 Application of Computers to Modern Business. (3).
A continuation of Management 481, stressing computer application to solution of business problems in such areas as: Sales analysis, Sales Forecasting, accounting, personnel, Inventory, Management, Production control, and Distributive applications. Introduction will also be made to management science applications and simulation. PREREQUISITE: Mgmt. 371 and 481 or permission of instructor.

503 Law of Taxation of Estates, Inheritances, and Gifts. (3).
A survey course of the law of taxation as applied to the transmission of property by gift or death and its impact upon accumulations of wealth. The constitutional basis, statutory implementation, administrative regulation, and court interpretation of the laws of the United States and the various states. PREREQUISITE: Management 302.

505 Estate Planning. (3).
Estate planning from an individual viewpoint designed to create, maintain, and distribute the maximum estate possible. Consideration is given to the aspects of law, insurance, real estate, investments, and taxes as they relate to the creation of estates by individuals and those who will be engaged in assisting others. PREREQUISITE: Management 503.

523 Advanced Industrial Relations. (3).
The factors which condition labor-management relations are examined; the nature and significance of labor disputes are analyzed, together with factors involved in their solution. Special attention is given to the growing importance of labor policies and their impact upon labor-management relations and the public in general. PREREQUISITE: Management 421 or 422 or consent of instructor.

541 Analysis and Control of Business. (3).
An overall study of management problems and the application of scientific management techniques to the control of various phases of business operation. Included are: general management controls, financial management controls,

sales management controls, production management controls, and personnel control and appraisal.

PREREQUISITE: Management 441 and/or 442.

542 Advanced Management of Business Enterprise. (3).

The development of the Top Management viewpoint, the basic objective being to develop executive abilities and creative thinking. Selected problem areas of modern business will be explored, alternative courses of action appraised, and decision-making ability developed.

PREREQUISITE: Management 442 and/or 441.

543 Seminar in Management. (3).

Special study of selected current problems in this area. For the most part, individual studies will be pursued with group analysis and discussion at regular class meetings.

PREREQUISITE: Consent of instructor.

591 Problems in Management. (1-6).

Directed independent research projects in an area selected by the student with the approval of the staff member supervising.

PREREQUISITE: 6 hrs. of Upper Division (undergraduate) course work in the area selected.

593-6 Thesis (3-6).

Application for writing a thesis must be filled out on an approved form after consultation with the major professor and filed with the Dean of the Graduate School.

Marketing

MR. SPINDLER, *Chairman*, MR. TONNING

G401 Marketing Administration. (3).

A case study of actual business marketing problems and the techniques used to solve them.

PREREQUISITE: Marketing 301.

G421 Wholesale-Industrial Marketing. (3).

A study of problems and policies of wholesale and industrial organizations related to their marketing efforts with emphasis on channels of distribution.

PREREQUISITE: Marketing 401. Fall semester.

G423 Purchasing. (3).

A study of the organization, principles, policies, procedures and techniques used in effective and efficient procurement by business and industry. Spring semester.

G425 Product Planning. (3).

Study of a product from the idea stage to placement of the product satisfactorily in the market place.

PREREQUISITE: Marketing 401.

G428 International Marketing. (3).

A study of the bases and promotion of foreign trade; international marketing organizations and methods; technical and financial features of international marketing. Fall semester.

G435 Cotton Marketing. (3).

Cotton as a special commodity is traced through the stages of production, processing, and marketing in the raw state; spinning and weaving or knitting; finishing; fabrication; and distribution at the wholesale and retail levels.

PREREQUISITE: Marketing 401 or permission of instructor. Fall semester.

G454 Industrial Advertising. (3).

A study of advertising procedures and techniques which are especially useful to production industry. Primary emphasis is placed upon trade papers and catalogs.

PREREQUISITE: Marketing 352. Spring semester.

G455 Television and Radio Advertising. (3).

A study of the structure of the commercial broadcasting systems of this country; methods of creating radio and television programs and commercials; campaign and broadcast management; media research.

PREREQUISITE: Marketing 352 or permission of instructor. Fall semester.

G456 Retail Advertising, Display and Promotion. (3).

A study of advertising procedures and techniques which are especially valuable to the retailer; techniques of display and promotion.

PREREQUISITE: Marketing 382. Fall semester.

G458 Advertising Agency Management. (3).

A study of the organization and activities of advertising agencies including management responsibilities, time and space buying, media selection, account executive activities, advertising research, creativity, merchandising, and production supervision.

PREREQUISITE: Marketing 454 or permission of instructor.

G461 Sales Management. (3).

Organization and operation of the sales department from the administrative standpoint, including procedures in training salesmen.

PREREQUISITE: Marketing 361.

G462 Sales Supervision and Training. (3).

A balanced study of two sales management problem areas—sales training techniques and field sales supervision. Textbooks and trade literature are surveyed and compared with practices in current usage.

G482 Retail Policies and Problems. (3).

PREREQUISITE: Marketing 461.

A study of the problems which retailers are currently facing and an analysis of the policy decisions they must make to effectively meet these problems.

PREREQUISITE: Marketing 382.

G485 Credit and Collections. (3).

System of credit and collections employed today, significance of credit information, charge account management, and collection correspondence.

G491 Marketing Research. (3).

Research methods and procedures used in the field of marketing to help solve marketing problems.

PREREQUISITES: Management 371 and Marketing 401.

502 Marketing Management. (3).

A study of policy determination and functions of the senior marketing executive with reference to functions, delegation of authority, and responsibilities of line and staff personnel, planning for growth and interpreting marketing knowledge.

521 Pricing and Price Policies. (3).

An examination of the role of prices in our economy and the problem of price making under conditions of competition, monopoly, and monopolistic competition with emphasis on the problems of non-price competition.

531 Seminar in Marketing. (3).

Special study of current problems in marketing. For the most part, individual studies will be pursued with group analysis and discussion. PREREQUISITE: Consent of instructor.

541 Marketing Thought. (3).

An introduction of the concepts and theories advanced in the development of institutions, channels, functions and processes of marketing and the contribution of other disciplines to marketing theory. PREREQUISITE: Consent of instructor.

591 Problems in Marketing.

Directed independent research projects in an area selected by the student with the approval of the staff member supervising.

PREREQUISITE: 6 hrs. of Upper Division (undergraduate) course work in the area selected.

A. Wholesale—Industrial Marketing (1-6).

B. Advertising (1-6).

C. Retail Management (1-6).

D. Sales Management (1-6).

E. Physical Distribution (1-6).

592 Applied Marketing Research. (3).

Development and application of research procedures to actual business problems.

PREREQUISITE: Marketing G491 or permission of instructor.

Mathematics

MR. KALTENBORN, *Chairman*, MR. WALKER

G421 History of Mathematics. (8).

The development of mathematics from the earliest times to the present; problem studies; parallel reading and class reports. PREREQUISITE: Mathematics 351.

G422 Theory of Numbers. (3).

Number theoretic functions; congruences; quadratic residues; Diophantine equations; continued fractions. PREREQUISITE: Mathematics 352.

G423 Theory of Numbers. (3).

Quadratic reciprocity; farey fractions; the distribution of prime numbers; algebraic numbers. PREREQUISITE: Mathematics 422.

G441 Algebraic Theory. (3).

Theory of groups, rings and fields, with applications. PREREQUISITE: Mathematics 352.

G461 Geometric Theory. (3).

Foundations of geometry; extensions of Euclidean geometry; non-Euclidean geometry; introduction to projective geometry. PREREQUISITE: Mathematics 352.

G481 Real Analysis. (3).

Sets and operations; equivalence of sets; real numbers; limit theorems; continuous functions; uniform continuity and convergence; integration; differentiation. PREREQUISITE: Mathematics 312, 352.

G482 Real Analysis. (3).

A continuation of Mathematics 481; convergence of series; power series; functions of several variables; mappings; partial derivatives; iterated integrals; improper integrals. PREREQUISITE: Mathematics 481.

G491 Complex Analysis. (3).

Complex numbers; analytic functions; mapping by elementary functions; complex integration; power series; conformal mapping. PREREQUISITE: Mathematics 312, 352.

501 Introduction to Modern Mathematics. (3).

Basic theory in the logical foundations of arithmetic; the postulational development of the number system; symbolic logic.

502 Contemporary Mathematics for High School Science Teachers. (3).

A comprehensive review and study of the fundamental principles of arithmetic, algebra and geometry, with emphasis on applications in biology, chemistry and physics.

503 Contemporary Mathematics for High School Science Teachers. (3).

A continuation of Mathematics 502; basic formulas and processes of trigonometry, analytic geometry and elementary calculus, with applications in chemistry and physics.

511 Modern Algebra for High School Teachers. (3).

A study of basic theory in the logical foundations of algebra, with an introduction to matrix algebra and Boolean algebra. This course is designed to enlarge the teacher's background and understanding of the nature of algebra.

512 Modern Geometry for High School Teachers. (3).

A study of basic theory in the logical foundations of geometry and in the fields of Euclidean, projective and non-Euclidean geometry. This course is designed to enlarge the teacher's background and understanding of the nature of geometry.

521 Seminar in the teaching of Algebra. (1).

Discussion of teachers' problems in organizing and teaching courses in algebra to high school students; consideration of current proposals for revising the content of high school algebra.

522 Seminar in the Teaching of Geometry. (1).

Discussion of teachers' problems in organizing and teaching courses in geometry to high school students; consideration of current proposals for revising the content of high school geometry.

531 Workshop in Junior High School Mathematics. (2).

This course is designed to provide in-service training to teachers of junior high school mathematics so that they may help in planning and implementing broad revisions in the mathematics programs at their respective schools.

532 Workshop in Junior High School Mathematics. (2).

Continuation of Math 531.

541 Workshop in Senior High School Mathematics. (2).

This course is designed to provide in-service training to teachers of senior high school mathematics so that they may help in planning and implementing broad revisions in the mathematics programs at their respective schools.

542 Workshop in Senior High School Mathematics. (2).

Continuation of Math 541.

Music

MR. HARRIS, *Chairman*, MR. EAHEART, MR. LA BOUNTY, MR. LUBRANI, MR. SMIT,
MR. WADE

501 A Study of Musical Styles from 1600 to 1800. (3).

The musical precedents and the evolution of the several styles and forms of Early, Middle and Late Baroque, and Classic Eras, focusing in depth on certain works of Monteverdi, Handel, Bach, Gluck, Haydn and Mozart.

502 A Study of Musical Styles from 1800 to the Present. (3).

The maturing of Beethoven; the composer-creator as originator of rules for art; expansion of tonal resources; expansion of instrumental forms; the resurgence of the short character piece; the song-cycle; program music and new formal organizational principles; the virtuoso and virtuosic styles; Italian opera, Drama Lyrique, and the Music Drama; the Nationalistic schools, Impressionism, Dynamism, Expressionism, Neo-Classicism, new media.

505 Composition. (3).

Free composition in all forms. Applicants to this course are required to submit original works in various forms and media as proof of maturity and technical preparation for graduate work. The course number may be repeated with the instructor's permission for successive semesters. (Individual instruction with added fees as for applied music.)

511 Theory I. (3).

Advanced harmony and counterpoint in sixteenth, seventeenth and eighteenth century styles. Writing and analysis in the contrapuntal style of the sixteenth century in four to eight voices, triple and quadruple counterpoint, pre-fugal styles. Italian and English madrigal. Eighteenth century contrapuntal technique; invention, chorale elaboration, suite, two-and three-voice fugues in the style of Bach and Handel.

512 Theory II. (3).

Advanced harmony and counterpoint in eighteenth, nineteenth and twentieth century styles. Writing and analysis in the larger eighteenth century forms; four- and five-voice fugues, double fugue, chaconne, passacaglia, and orchestral forms. Chromatic harmony. Impressionism. Harmonic and contrapuntal practices in the twentieth century.

516 Advanced Conducting. (3).

Conducting the concert band, the symphony orchestra, and the chorus in the larger musical forms. Emphasis on interpretation.

517 Choral Literature and Techniques. (3).

A survey of choral literature from Dunstable to the present, using scores, records, and class performance. Analysis of the scores in terms of style, form, and performance problems. Techniques of teaching and conducting unfamiliar styles.

518 Instrumental Literature and Techniques. (3).

Specific and intensive research in each student's major instrument, covering (1) history of the instrument, (2) texts, methods and periodicals, (3) orchestral studies, (4) solo and ensemble literature, and (5) listening and performance.

520 Music Education Seminar. (3).

Historical development and basic philosophies in music education. Current

trends in school music, curricula, and testing programs. Evaluation of new methods and materials.

APPLIED MUSIC

550 **Piano.** (2 or 4).
551 **Organ.** (2 or 4).
552 **Stringed Instrument.** (2 or 4).
553 **Percussion Instruments.** (2 or 4).
554 **Woodwind Instrument.** (2 or 4).
556 **Brass Instrument.** (2 or 4).
559 **Voice.** (2 or 4).

APPLIED MUSIC (INDIVIDUAL LESSONS)

ADMISSION TO GRADUATE STANDING: Information regarding the qualifications for admission to an applied music course at the graduate level may be obtained by writing to the Chairman of the Department of Music. Applicants who fail to meet requirements for graduate standing may register for undergraduate credit until the graduate requirements are met.

FEES: See page 20 of this bulletin. Fees are paid to the University at the office of the Business Manager.

CREDITS AND GRADES: Two semester hours of credit will be granted for one thirty-minute lesson weekly; four semester hours of credit will be granted for two thirty-minute lessons weekly. Practice hours will be determined by the instructor to meet the needs of the student. Grades are awarded on the same basis and have the same significance as in any other subject.

EXAMINATIONS: Each student will prepare and perform for members of the faculty of the Department of Music suitable selections and technical exercises of a grade of difficulty appropriate to graduate standing. Examinations will be held in the Music Hall on days set aside for this purpose near the end of each semester. Credit for the course will not be granted to any student who fails to take the examination.

REGISTRATION: Students will register for individual lessons at the same time and in the same manner that they register for other courses.

Philosophy

MR. BARTON, *Chairman*, MR. BIGGER

G411 **Logic.** (3).
A study of the basic principles and modes of correct thinking.
PREREQUISITE: Two semester courses in Philosophy or permission of the instructor. Offered alternate years.

G412 **Theory of Knowledge.** (3).
A critical study of the basic problems of epistemology, with readings in the important philosophers.
PREREQUISITE: Two semester courses in philosophy or permission of the instructor. Offered alternate years.

G413 **Metaphysics.** (3).
An analysis of the basic metaphysical concepts and a critical study of old and new theories of the nature of being.
PREREQUISITE: Two semester courses in Philosophy or the permission of the instructor. Offered alternate years.

G414 Contemporary Philosophy. (3).

The major concepts and problems of modern philosophy including Existentialism and Logical Positivism.

PREREQUISITE: Two semester courses in Philosophy or permission of the instructor. Offered alternate years.

G415 American Philosophy. (3).

The development of the philosophical traditions in the United States from the Puritans to the present and their relationship to the social and cultural history. PREREQUISITE: Two semester courses in philosophy, or permission of the instructor. Offered alternate years.

511, 512 Seminar in the Problems of Current Philosophy. (3-3).

Individual research will be encouraged on a topic chosen for discussion at the beginning of each semester. This course will be open only to students who have satisfactorily completed 2 semesters of undergraduate Philosophy. (One semester of undergraduate may be accepted by permission of advisor and instructor where student has shown unusual ability.)

Political Science

MR. BUELL, *Chairman*, MISS McCCLANAHAN

G412 Development of U. S. Domestic Policy. (3).

A study of the formation and execution of selected domestic policies (fiscal, economic, agriculture and conservation, welfare, grants-in-aid). This course is designed to explore in detail the political and administrative environment of governmental decision making.

G413 Municipal Problems. (3).

A study of selected problems in municipal administration (organization, personnel, fiscal, planning).

G422 Soviet Government and Politics. (3).

Organization and function of the authoritarian state, with emphasis on the role of the Communist Party and ideology.

G423 British Government and Politics. (3).

The nature and development of the British Constitutional system. Special emphasis will be placed on the Cabinet, Parliament, and the Commonwealth organization and function. (To replace the present Comparative course.)

521 Seminar in Comparative Political Institutions and Thought. (3).

A comparative study of the development of political institutions and thought in major world governments.

525 Political Geography. (Same as Geography 525). (3).

The content and philosophy of political geography as illustrated by a broad survey of major writers in the field followed by student analysis of individual nation-states.

531 Seminar in U. S. Political Institutions and Thought. (3).

A study of the development of major political institutions and thought.

Psychology

MR. McCANN, *Chairman*, MR. ANDERSEN, MR. J. BOONE, MR. CONSALVI, MR. LEEMING

G411 History of Psychology. (3).

A general orientation course covering the historical antecedents and systems of psychology.

PREREQUISITE: 12 semester hours in psychology.

G412 Physiological Psychology. (3).

A study of the physiological functions involved in behavior and experience. Surveys the physiology of the sense organs, nervous system and response mechanisms.

PREREQUISITE: 12 semester hours in psychology.

G413 Advanced Quantitative Methods. (3).

Emphasis on standard errors of all commonly used statistics as well as the analysis of variance, Chi Square, and non-parametric tests.

PREREQUISITE: Psychology 215.

G414 Psychology of Exceptional Children. (3).

Home and school problems of handicapped, retarded, emotionally unstable, precocious, or gifted children.

PREREQUISITE: 12 semester hours in psychology.

G417 Psychological Appraisal. (3).

Introduction to the development and application of psychological tests. Survey of instruments and techniques currently used in the psychological appraisal of the individual.

PREREQUISITE: 12 semester hours in psychology.

501 Theories of Learning. (3).

Examination and discussion of the major contemporary learning theories. Attention is given to the basic assumptions, logical structure, and experimental support for the theories of Hull, Skinner, Tolman, Guthrie and of the Gestalt and Probability theorists.

502 Theories of Personality. (3).

A survey of the major contemporary theories of personality; consideration of the development and general nature of personality theory.

503 Psychometrics. (3).

Statistical procedures in the construction and evaluation of psychological tests and other measuring instruments. Advanced correlational techniques are stressed. The test as a research device and the quantitative analysis of research results are considered.

PREREQUISITE: Psychology 417.

511 Contemporary Approaches to Psychotherapy. (3).

A survey of psychotherapeutic methods and concepts utilized in the counseling of the emotionally disturbed individual. The client-centered method is emphasized.

521 Measurements of Intelligence. (3).

Consideration of group and individual tests of intelligence with major emphasis on the student's acquiring proficiency in the administration, scoring, and interpretation of the Stanford-Binet, Wechsler Adult Intelligence Scale, and the Wechsler Intelligence Scale for Children.

522 Projective Techniques. (3).

Consideration of the projective methods of personality assessment currently employed in clinical practice with emphasis on the development and application of the Rorschach technique.

531, 532, 533 Directed Practicum (1 to 3 hours credit each semester)

Seminar discussion and supervised experience in the application of basic psy-

chological procedures and principles to clinical cases in various institutional settings.

PREREQUISITE: Consent of instructor.

541, 542 Seminar: General. (3-3).

Systematic study of current topics in psychology of a general-theoretical nature. PREREQUISITE: Consent of instructor.

543, 544 Seminar: Clinical. (3-3).

Systematic study of current topics in the field of clinical psychology. PREREQUISITE: Consent of instructor.

593-6 Thesis. (3 or 6).

Application for writing a thesis must be filled out on an approved form after consultation with the major professor and filed with the Dean of the Graduate School.

Sociology

MR. NEWTON, *Chairman*, MR. GORDON

G411 Criminology. (3).

Theories of causation, crime as a business, affiliated problems, trends in punishment, treatment of offenders, control and prevention.

G412 Collective Behavior. (3).

Emergence of collective behavior, spontaneous collectivities, social movements, social consequences of restrictive collective behavior.

G417 Population. (3).

Population theories and policies; their definition and history. Trends in population growth; methods of population analysis, and trends in fertility and mortality. Emphasis on fertility, mortality, sex and age composition, and migration and their influences on population change.

G419 History of Social Thought. (3).

Emphasis on the historic sources of social ideas in Western culture in terms of their relevance to contemporary systematic theory.

G420 Analysis of Juvenile Delinquency. (3).

Trends of juvenile delinquency; the development of case study techniques and diagnosis of juvenile delinquency; comparative analysis of various theoretical approaches. PREREQUISITE: Sociology 411.

G422 Modern Sociological Theories. (3).

European contributions, American developments, recent trends and influences in sociological theory.

G426 Research Methods in Social Relations. (3).

Statistical and non-statistical approaches employed in contemporary social research, review and analysis of important monograph findings, practical applications derived from recurring social behavior.

G445 Race Relations. (3).

A study of ethnic organization and interrelations with specific emphasis on the status of the Negro in American society, and the process of integration.

G499 Directed Individual Study. (1-4).

Individually directed advanced reading and/or research in special areas of interest. PREREQUISITE: permission from departmental chairman.

Speech and Drama

MR. HARRY AUSPRICH, *Chairman*, MR. WHITE, MR. RAPP, MR. RIGGS

G431 History of British and American Oratory. (3).

A history of the life, times, and speeches of outstanding orators of England and America.

G435 Speech Criticism. (3).

Problems in the theory and criticism of classical and modern rhetorical works; application of the principles of rhetoric to the critical evaluation of current public speaking practice.

G461 Speech Pathology. (3).

Steps involved in the differential diagnosis of speech disorders, establishing etiology, and planning a corrective program. Observation of diagnostic sessions in the Memphis Speech and Hearing Center. The contributions of surgery, medicine, psychology, and other related disciplines. PREREQUISITES: Speech 261, 262, and 263.

G462 Clinical Speech and Hearing Practicum. (6).

Two Hundred hours of supervised experience in evaluating and conducting therapy with children and adults who have communicative handicaps. This work is done in the Memphis Speech and Hearing Center and in other rehabilitation agencies, schools, and hospitals. PREREQUISITE: Permission of the instructor.

G481 Television Production III. (3).

An intensive study of the more advanced techniques of television production and direction. Special emphasis on the dramatic and children's formats with regard to their unique production problems. PREREQUISITE: Speech 382.

G482 Television Management and Programming. (3).

A study of the principles of broadcast management and programming with special attention to station operation, the role of the producer-director, and the production of local programs. PREREQUISITE: Speech 280.

G492 Play Production for Secondary Schools. (3).

Consideration of the problems of the play director in high schools.

G493 Directing the Forensics Program. (3).

Designed for the teacher charged with the responsibility of developing and directing interscholastic or intercollegiate competitive speech programs; the study of the historical background for such programs, organizing techniques, recruiting, tournament direction, and other related concerns.

The Graduate School**DEGREES CONFERRED—FEBRUARY 2, 1963****MASTER OF ARTS**

Bill Drue Avery	Alice Randolph Hindman
William Brooks Barron	Charles F. Hurtado
Edward W. Bigger, Jr.	Ralph A. Hyde
Keener L. Bowdon	Osa Smith King
Leonard C. Bowers	Margaret S. Lumpkin
Margie Snipes Caffey	Augus H. McAdory
Robert J. Chapman	James A. McDearman, Jr.
Roger R. Clapp	John Francis Moran
Harold D. Davis	Michael T. Moriarty
Robert E. Ditto	Albert G. Myers, Jr.
James R. Donovan	Luther A. Parker
Susie Allene Draper	Julius B. Roberson
Jane Williams Droke	John Paul Rukavina
Lila Reese Dumas	Margie Pipkin Smith
Roman S. Emde	Martha Nell Smith
John Olen Fish	Joyce Janell Bryson Thompson
Douglas G. Fritzsel	Marion Robert Wells
Dan M. Guinn	Daniel S. Whipple
Mae Mikles Guise	Catherine K. Wilkins
Orville C. Hancock	Ruby Hanna Williams
Larry Gladwin Harding	Thomas M. Williams
Everette Milton Hatcher, Jr.	

DEGREES CONFERRED—JUNE 1, 1963**MASTER OF ARTS**

Ruth Adair Augustine	Polly Waters Love
Amelia Manogue Bell	Joe Nip McKnight
William Bryant Bretherick	Jeanne Strickler North
Gardner P. Brooksbank, Jr.	James Morgan Pendergrast
Mary Louise Williams Clark	Rose McAfee Pickle
Walter Raleigh Coppedge	Mary Jo Powell
Victor M. Coury	Carmack Wilson Sanders
Ada Jane Culbreath	Karen Roberts Stafford
Junius Edward Davidson III	Charlotte R. Staub
Sara Ann Erwin	Maurine S. Talley
Carol Jeanne Cox Gibson	Frank Allen Thornton
Evie Marie Johnson Gridley	Benjamin Franklin White Jr.
Larry M. Heathcott	William Edward Wild
Martin Ray Houston	James E. Wilford Jr.
George William Ingle	Raymond D. Williams
Elna Adelle Arnold Johnson	Sara Jo Windland
Nona Pike Little	Charles D. Yates

DEGREES CONFERRED—AUGUST 24, 1963**The Graduate School****MASTER OF ARTS**

Ernest B. Abron	Richard D. Guynn
Mary Chimane Adams	Martha Cottrell Hammett
Sally Antoinette Adams	Geraldine B. Harris
Grant Noble Aldridge	Carmen R. Hatchett
Elizabeth Allen	Betty Joyce Hendon
Helen Armitage Allen	William B. Holliman
Nannie Ruth Allen	Helen N. Humphreys
Patricia Ann Allen	Rebecca T. Hutter
Jerry David Alsup	James Sweed Ingram
Gene J. Ament	Ada Barber Jackson
Joe Harold Anders	James Hoyt Jobe
Bennie Marshall Batts	Addie Brown Jones
Samuel E. Beaty	Bettie C. Jones
William A. Bickers	Ellis M. Jones Jr.
Nancy Jane Billett	Maurice Jones
Mary Anne Allison Blackford	Riley M. Jones
Dolores Jean Bodry	Nora Jane Kelly
Clydene Neely Booth	Harold F. Krueger
James Gothard Brooks Jr.	Lois Howry Larry
Arthur M. Browder Jr.	Elwood N. LeBouef
Max Denton Browder	Jane Griffin McGinnis
James A. Brown	Laura Anne McGowan
Allan Carter Browning Jr.	Eliabeth Parker Martin
Jane D. Fletcher Burch	Marjorie H. Morgan
Bernice H. Burns	Hilda Chase Mullen
Richard Graves Cain	Jerry Wayne Murphy
Mary Louise R. Carver	Kittie Davis Nowlin
Linda Claire Conyers	Gordon K. Pafford
George W. Cox	Lewis H. Parks
Beverly W. Crawford	Aubrey Ted Parrish
Frank A. Davis Jr.	Floriene (Jo) Patterson
Wooldridge W. Davis	Martha Morris Peal
Louise B. Dickerson	Ernestine Wilson Peoples
Jo Downey	Evin L. Perdue
Donald Duttenhoeffer	Genevieve Caldwell Phillips
Donna E. Eddins	Joe G. Phillips
Margaret Ford Evans	Beverly Ann Babb Phipps
Barbara Nelle Ewell	Almarie S. Piercy
Andrea C. Farrow	Grace Elisabeth Prescott
Charles P. Foster	George Aaron Price
Naomi Jane Fowler	Marshall F. Priest Jr.
Dorothy W. Fowlston	J. Stanford Pruitt
Lynette Friedman	Hollis A. Purtle
Marjorie Lou Giles	James R. Rawls
Dean C. Golden	James Franklin Reid
Charles R. Goodpasture	James Leslie Rhodes
Robert B. Gould	Floyd B. Roberts

Robert D. Ryan	William Martin Suggs
Margaret S. Scarborough	Margaret Jewel A. Tidwell
Sue Ann Scholosser	Pansy Bush Trenor
Allen Y. Searcy	Maxine Numa Tuggle
William R. Sewell	Mary Alice Parsons Turner
Hugh Robert Shuttleworth	Walter F. Wacht Jr.
Harbans Singh	LaNell Watkins Wade
Jerry Brown Smith	Lucille McGehee Wallis
William Harry Smith	Frank E. Woodward
Ann Jones Stamm	William H. Yokel
Lodema M. Stanfield	Charles Robert Young
Billy Wayne Starnes	Joan Harris Zurhellen
Vaughn Elden Stimbert	

